



Product Catalog

Solid Phase Synthesis / Purification Resin





Table of Contents

Introduction	01 / 02
Oligonucleotide Solid-phase Synthesis Carriers	03 / 06
Oligonucleotide Synthesis Carriers	07 / 11
Peptide Synthesis Solid Supports	12 / 17
Pre-loaded Amino Acid Resins	18 / 25
Chromatography/Purification Material	26 / 28

Introduction



Sunresin New Materials Co. Ltd, is a Chinese mainland A-share listed company (stock code 300487) with a market value of over \$4 billion (USD), and headquartered in Xi'an, China. Sunresin has nine holdings and shareholding subsidiaries worldwide and three overseas business development centers in North America, Europe and Hong Kong. We have more than 1300 employees globally. Sunresin has outstanding technical capabilities in driving innovations for separation, purification and extraction materials, expanding into emerging applications, and providing professional, efficient sales and technical support services. It possesses independent intellectual property rights, with 60 Chinese patents (including 51 patents for invention), as well as 6 international patent grants and 8 international patent applications (PCT). Sunresin has undertaken 2 projects under the innovation funds from the Chinese Ministry of Science and Technology, and has won 3 national key new products awards as well as 2 second-place prizes at the National Science and Technology Progress Awards. Sunresin considers innovation, quality and service as the foundation of its enterprise development, and is committed to continually improving the development of adsorption/separation materials and system integration technologies.



Sunresin Life Sciences

Sunresin core technical personnel have 20+ years of experience in the Life Sciences field, and are constantly exploring new demands, applications and technologies. They have developed and commercialized several innovative product lines and also provide customization services to fulfil more specific requirements, enhancing our ability to solve customers' challenges. Sunresin has four established GMP-like production workshops in China, and strictly controls the production process in accordance with GMP quality management systems. It is subjected to audits from over 100 domestic and foreign customers each year, and has passed audits from many internationally renowned pharmaceutical companies such as Eli Lilly, Bachem, PPL, Dr.Reddy's Lab, WuXi AppTec, Hengrui Pharma, Asymchem Pharmaceuticals Group, and Sinovac Life Sciences. From these facilities, Sunresin provides global separation and purification support for peptide/oligonucleotide synthesis, monoclonal antibodies, recombinant proteins, covid vaccines, diagnostic reagents, blood products,chemically synthesized drugs, and other related products.

Advantages of Sunresin

1. Stable and reliable production control

Sunresin has an independently-developed automated control system that is at an internationally advanced level, which enables fully automated production operation. In strict accordance with GMP requirements, production management is carried out to ensure stable product quality and batch to batch repeatability.



2. Strict product quality control

Sunresin establishes strict internal quality control/quality assurance system and specifications. It has state-of-the-art testing equipment, and strictly follows GHS, ISO9001, and guidelines for the management of pharmaceutical production. All testing methods and processes are strictly implemented in accordance to established SOPs to ensure stable product quality and provide a guarantee for the safety and stability of the product application process.



3. Complete use-test system

Sunresin has established a well-equipped use-test system. With experienced R&D engineers, excellent facilities, and first-class use-test laboratories, it can conduct a full range of product performance evaluations of various types of chromatographic media. This ensures the stability of products used by our customers, and guarantees the stability of their production process.



4. Separation and purification technical services and collaboration

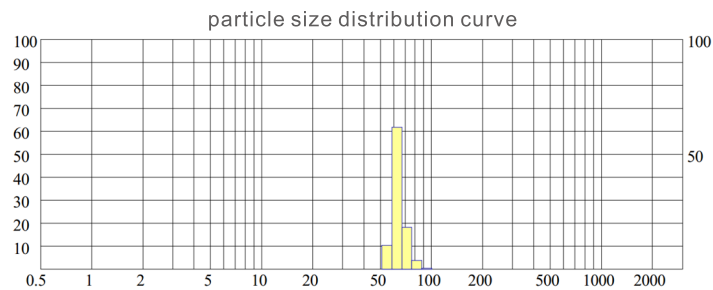
Combining the advantages of our separation and purification technologies with our high quality separation materials, Sunresin is capable of customizing the development of separation products and product purification processes for our customers. This puts us in a unique position to work with our customers to address more specific needs and challenges, where a regular product may not be optimal.



Oligonucleotide Solid-phase Synthesis Carriers

Sunresin's oligonucleotide solid-phase synthesis carrier is mainly cross-linked styrene as its main skeleton, with uniform particle size and distribution of active site. It can be pre-loaded with different Linkers or different base types, and the series of carriers have the following characteristics:

1. High loading capacity: By optimizing the polymerization conditions and controlling the uniform distribution of active sites, the carrier loading capacity is increased, ultimately improving the yield of nucleic acid in a single batch.
2. Uniform particle size distribution: This is conducive to the uniform dispersion of the reactants and effectively improves the synthesis efficiency.

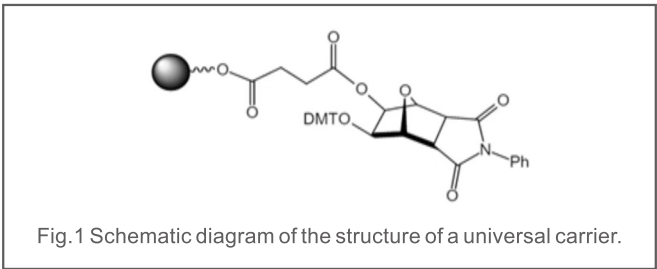


3. Stable performance: The carrier exhibits good performance regardless of whether it is used for laboratory research (2mmol scale) or workshop production (900mmol scale).
4. Product diversification: In addition to standardized synthesis carriers, carriers with different degrees of substitution, pore sizes, preloaded with different linkers and nucleoside monomers can be prepared according to customer needs. They are widely used in the synthesis of RNA, DNA, modified oligonucleotides, etc., and have good performance.

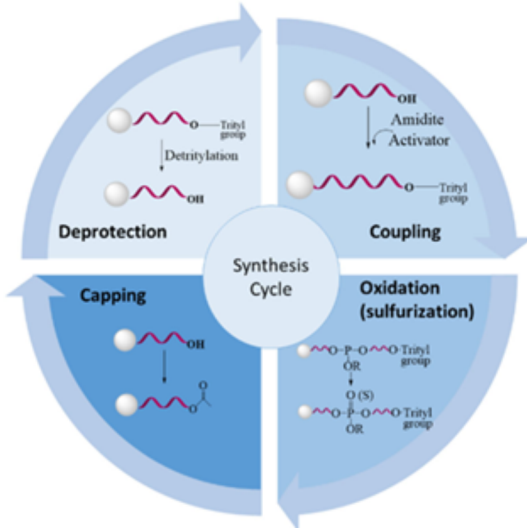
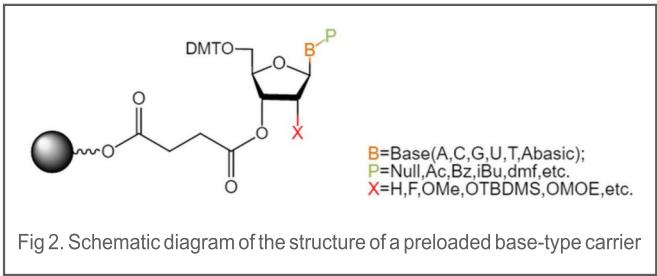
Parameters of Oligonucleotide Solid-phase Synthesis Carriers		
Backbone	Polystyrene	
Particle Size (μm)	50-100	50-100
Average Pore Size *(nm)	45±15	150±20
Degree of Substitution*(μmol/g)	550±50	450±50
Dry Volume (ml/g)	2.5±0.5	4.0±0.5
Swelling in Acetonitrile(ml/g)	3.5±0.5	5.5±0.5
Swelling in Toluene (ml/g)	5.7±0.5	8.5±0.5
Application	For synthesis of 20-30 base sequences	For synthesis of 30-50 base sequences
* Average pore size and substitution can be customized according to customer's requirement		

Parameters of Pre-loaded Solid Support for Oligo Synthesis		
Product	Universal support	Support with preloaded bases
Particle Size (μm)	50-100	50-100
Substitution (μmol/g)	50-350	50-350
Dry Volume (ml/g)	2.7±0.5	2.5±0.5
Swelling in Acetonitrile(ml/g)	4.0±0.5	3.5±0.5
Swelling in Toluene (ml/g)	5.5±0.5	4.8±0.5
* Average pore size and substitution can be customized according to customer's requirement		

Universal carrier: preloaded with different linker structures (as shown in Figure 1). Due to the strong versatility of this type of carrier, it can simplify the carrier inventory and reduce inventory costs. On the other hand, the linker does not enter the API, thereby reducing regulatory requirements. Whether it is in the stage of nucleic acid drug development and screening, or in the stage of industrial production, the universal carriers can meet the requirements.



Preloaded base-type carrier (different bases can be preloaded): For the synthesis of nucleic acid drugs with a known sequence, preloaded base type carrier (as shown in 2) can be selected, in which the bases are linked to the resin through a succinic acid structure. The use of preloaded base-type carriers reduces the amount of phosphoramidite monomers required in the synthesis process, thereby reducing production costs.



Carrier usage instructions

1. Select a suitable carrier with the appropriate substitution degree based on the characteristics of the sequence (DNA is recommended to use a carrier with a substitution degree of 350 μmol/g, and RNA is recommended to use a carrier with a substitution degree of 250 μmol/g).
2. Determine the synthesis scale based on your experimental purpose.
3. Calculate the amount of carrier required based on the synthesis scale.

$$\text{Amount of resin (g)} = \frac{\text{Synthetic Scale (μmol)}}{\text{Loading (μmol/g)}}$$

4. Calculate the required volume of the synthetic column.

$$\text{Column volume (mL)} = \frac{\text{Amount of resin (g)}}{0.111}$$

The loading coefficient for the support with a pore size of 45nm is 0.111, and for the support with a pore size of 150nm, it is 0.086.

5. Select the appropriate synthetic columns according to calculated synthetic column volume. Currently, commonly used synthetic columns with fixed volumes include 1.2mL, 6.3mL, 12mL, 24mL, 48mL, etc. FineLINE series synthetic columns with adjustable heights are also available and the resin bed height is usually controlled between 3 and 10cm.
6. Fill the support into synthetic column in powder form.
7. Both universal supports and preloaded base-type supports must be swollen first, then remove the DMT protecting group, and then choose an appropriate synthesis strategy to complete the synthesis of oligonucleotides.
8. After sequence synthesis is completed, select an appropriate solvent to remove the protecting groups, cleave the synthesized oligonucleotide from the resin, and then proceed to purification and analysis.

Partial Raw Material Quality Control and Application Test

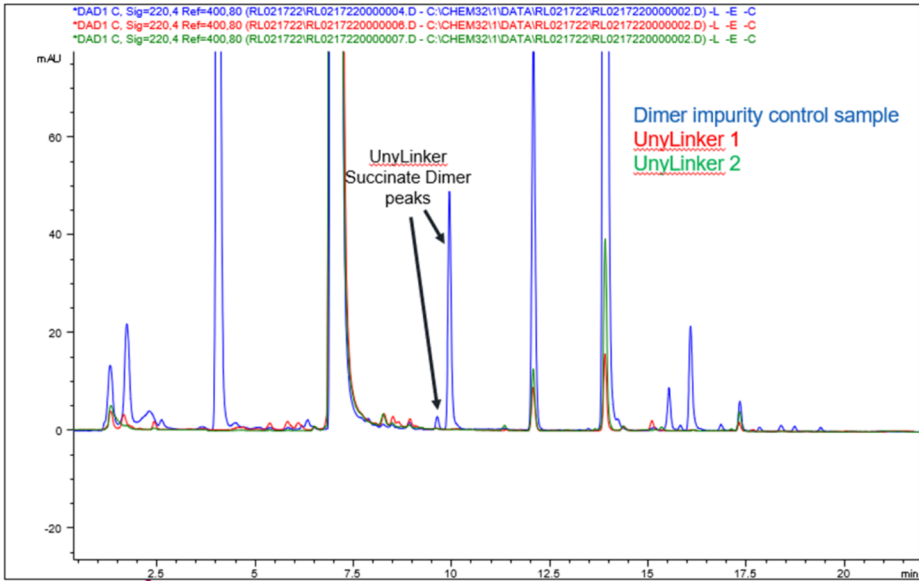
1. Raw Material Quality Control

UnyLinker raw materials are strictly controlled to ensure that no linker dimer is introduced, which improves the purity of customer oligonucleotide products.

UnyLinker LC-UV & MS Analysis

- Waters BEH C18 column 2.1 x 150 mm
- MP A: 10 mM Ammonium Acetate in water
- MP B: ACN
- Sample prep: 2 mg/ml in ACN
- Inj vol: 3 ul
- Detection: 220 nm
- Flow rate: 0.25 mL/min
- Temperature: Ambient
- Data collection: 35 min
- Equilibration time: 10 min
- MS: Negative mode from 200 to 2000 m/z

Time (min)	% MP A	% MP B
0	60	40
25	10	90
35	10	90
35.1	60	40

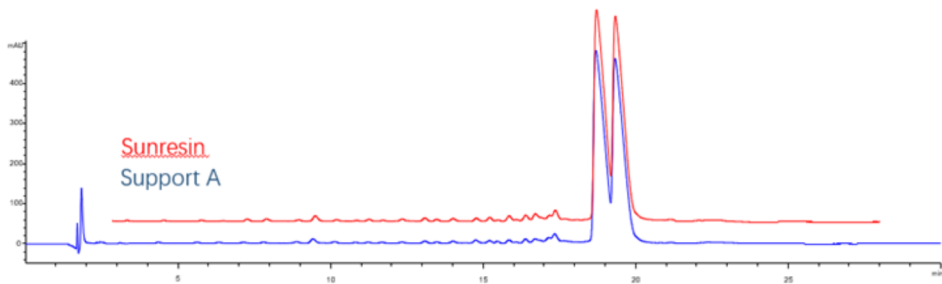


2. Application Test

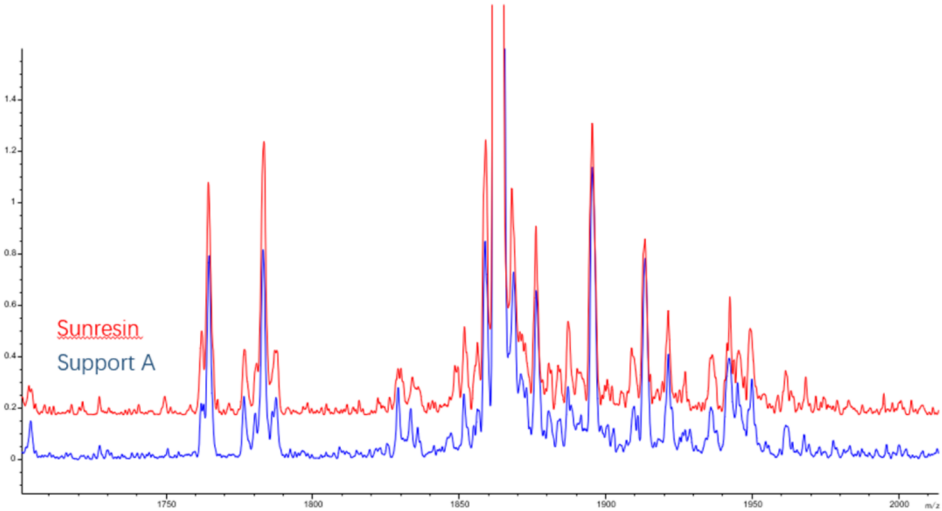
2.1 Test sequence: 5-10-5 MOE gapmer

No.	Note	Loading (μmol/g)	Synthesis Scale(mmol)	Yield (%)
1	Support A	321.4	2.2	64.7
2	Unylinker-OH	312.7	2.2	64.8
3	Unylinker-OH	318.4	2.2	65.1
4	Unylinker-OH	326.4	2.2	64.3

HPLC



Mass spectrometry analysis



2.2 Test sequence: 19mer PS 2'-MOE

No.	Note	Loading (μmol/g)	Synthesis Scale (mmol)	Crude Purity (%)	Crude Yield (OD/μmol)
1	Support B	350	3.4	81.08	139
2	Unylinker-OH	326.8	3.4	87.97	136
3	Unylinker-OH	326	3.4	88.21	148
4	Unylinker-OH	316.8	3.0	83.34	140

2.3 Test sequence: 20mer DNA

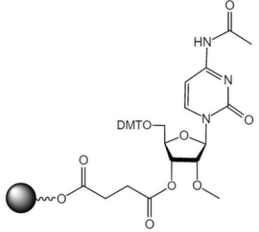
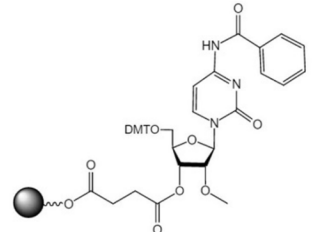
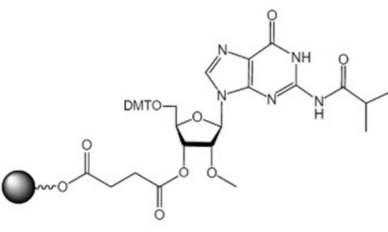
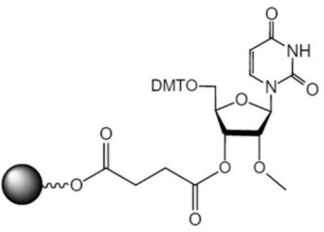
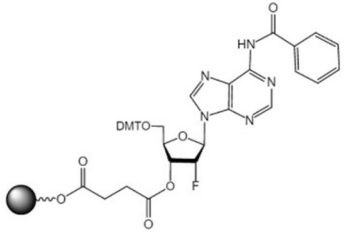
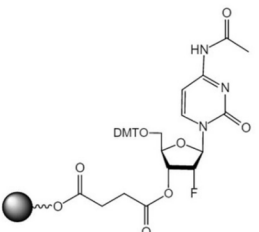
No.	Note	Loading (μmol/g)	Synthesis Scale (mmol)	Crude Purity (%)	Crude Yield (OD/μmol)
1	dA(Bz)-OH	347	900	86	161
2	dA(Bz)-OH	347	900	86	156
3	dA(Bz)-OH	347	900	86	158

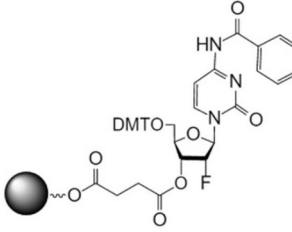
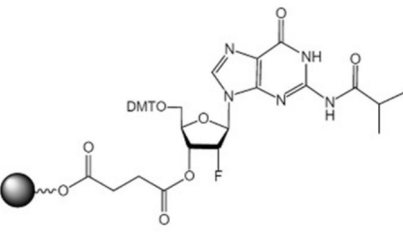
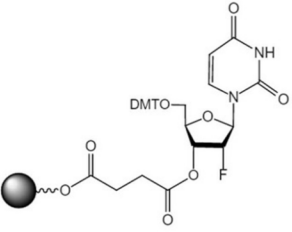
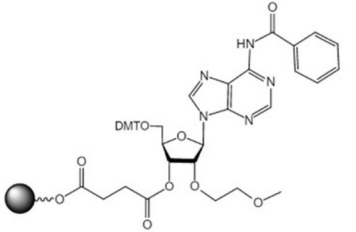
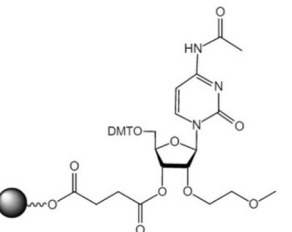
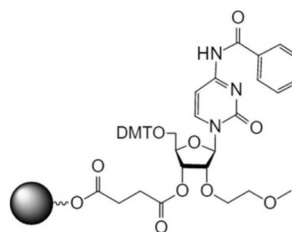


Oligonucleotide Synthesis Carriers

Product Name	Resin Funtional Groups	Substitution	Catalog No.
Seplife® Unylinker-OH resin		125-175	LXSSN1-045-01-01
		175-225	LXSSN1-045-01-02
		225-275	LXSSN1-045-01-03
		275-325	LXSSN1-045-01-04
		325-375	LXSSN1-045-01-05
Seplife® dA(Bz)-OH Resin		125-175	LXSSN1-045-02-01
		175-225	LXSSN1-045-02-02
		225-275	LXSSN1-045-02-03
		275-325	LXSSN1-045-02-04
		325-375	LXSSN1-045-02-05
Seplife® dC(Ac)-OH Resin		125-175	LXSSN1-045-03-01
		175-225	LXSSN1-045-03-02
		225-275	LXSSN1-045-03-03
		275-325	LXSSN1-045-03-04
		325-375	LXSSN1-045-03-05
Seplife® dC(Bz)-OH Resin		125-175	LXSSN1-045-04-01
		175-225	LXSSN1-045-04-02
		225-275	LXSSN1-045-04-03
		275-325	LXSSN1-045-04-04
		325-375	LXSSN1-045-04-05
Seplife® dG(iBu)-OH Resin		125-175	LXSSN1-045-05-01
		175-225	LXSSN1-045-05-02
		225-275	LXSSN1-045-05-03
		275-325	LXSSN1-045-05-04
		325-375	LXSSN1-045-05-05
Seplife® dT-OH Resin		125-175	LXSSN1-045-06-01
		175-225	LXSSN1-045-06-02
		225-275	LXSSN1-045-06-03
		275-325	LXSSN1-045-06-04
		325-375	LXSSN1-045-06-05

Product Name	Resin Funtional Groups	Substitution	Catalog No.
Seplife® ribo A(Bz)-OH Resin		125-175	LXSSN1-045-07-01
		175-225	LXSSN1-045-07-02
		225-275	LXSSN1-045-07-03
		275-325	LXSSN1-045-07-04
		325-375	LXSSN1-045-07-05
Seplife® ribo C(Ac)-OH Resin		125-175	LXSSN1-045-08-01
		175-225	LXSSN1-045-08-02
		225-275	LXSSN1-045-08-03
		275-325	LXSSN1-045-08-04
		325-375	LXSSN1-045-08-05
Seplife® ribo C(Bz)-OH Resin		125-175	LXSSN1-045-09-01
		175-225	LXSSN1-045-09-02
		225-275	LXSSN1-045-09-03
		275-325	LXSSN1-045-09-04
		325-375	LXSSN1-045-09-05
Seplife® ribo G(iBu)-OH Resin		125-175	LXSSN1-045-10-01
		175-225	LXSSN1-045-10-02
		225-275	LXSSN1-045-10-03
		275-325	LXSSN1-045-10-04
		325-375	LXSSN1-045-10-05
Seplife® ribo U-OH Resin		125-175	LXSSN1-045-11-01
		175-225	LXSSN1-045-11-02
		225-275	LXSSN1-045-11-03
		275-325	LXSSN1-045-11-04
		325-375	LXSSN1-045-11-05
Seplife® 2'-OMe-A(Bz)-OH Resin		125-175	LXSSN1-045-12-01
		175-225	LXSSN1-045-12-02
		225-275	LXSSN1-045-12-03
		275-325	LXSSN1-045-12-04
		325-375	LXSSN1-045-12-05

Product Name	Resin Funtional Groups	Substitution	Catalog No.
Seplife® 2'-OMe-C(Ac)-OH Resin		125-175	LXSSN1-045-13-01
		175-225	LXSSN1-045-13-02
		225-275	LXSSN1-045-13-03
		275-325	LXSSN1-045-13-04
		325-375	LXSSN1-045-13-05
Seplife® 2'-OMe-C(Bz)-OH Resin		125-175	LXSSN1-045-14-01
		175-225	LXSSN1-045-14-02
		225-275	LXSSN1-045-14-03
		275-325	LXSSN1-045-14-04
		325-375	LXSSN1-045-14-05
Seplife® 2'-OMe-G(iBu)-OH Resin		125-175	LXSSN1-045-15-01
		175-225	LXSSN1-045-15-02
		225-275	LXSSN1-045-15-03
		275-325	LXSSN1-045-15-04
		325-375	LXSSN1-045-15-05
Seplife® 2'-OMe-U-OH Resin		125-175	LXSSN1-045-16-01
		175-225	LXSSN1-045-16-02
		225-275	LXSSN1-045-16-03
		275-325	LXSSN1-045-16-04
		325-375	LXSSN1-045-16-05
Seplife® 2'-F-A(Bz)-OH Resin		125-175	LXSSN1-045-17-01
		175-225	LXSSN1-045-17-02
		225-275	LXSSN1-045-17-03
		275-325	LXSSN1-045-17-04
		325-375	LXSSN1-045-17-05
Seplife® 2'-F-C(Ac)-OH Resin		125-175	LXSSN1-045-18-01
		175-225	LXSSN1-045-18-02
		225-275	LXSSN1-045-18-03
		275-325	LXSSN1-045-18-04
		325-375	LXSSN1-045-18-05

Product Name	Resin Funtional Groups	Substitution	Catalog No.
Seplife® 2'-F-C(Bz)-OH Resin		125-175	LXSSN1-045-19-01
		175-225	LXSSN1-045-19-02
		225-275	LXSSN1-045-19-03
		275-325	LXSSN1-045-19-04
		325-375	LXSSN1-045-19-05
Seplife® 2'-F-G(iBu)-OH Resin		125-175	LXSSN1-045-20-01
		175-225	LXSSN1-045-20-02
		225-275	LXSSN1-045-20-03
		275-325	LXSSN1-045-20-04
		325-375	LXSSN1-045-20-05
Seplife® 2'-F-U-OH Resin		125-175	LXSSN1-045-21-01
		175-225	LXSSN1-045-21-02
		225-275	LXSSN1-045-21-03
		275-325	LXSSN1-045-21-04
		325-375	LXSSN1-045-21-05
Seplife® 2'-O-MOE-A(Bz)-OH Resin		125-175	LXSSN1-045-22-01
		175-225	LXSSN1-045-22-02
		225-275	LXSSN1-045-22-03
		275-325	LXSSN1-045-22-04
		325-375	LXSSN1-045-22-05
Seplife® 2'-O-MOE-C(Ac)-OH Resin		125-175	LXSSN1-045-23-01
		175-225	LXSSN1-045-23-02
		225-275	LXSSN1-045-23-03
		275-325	LXSSN1-045-23-04
		325-375	LXSSN1-045-23-05
Seplife® 2'-O-MOE-C(Bz)-OH Resin		125-175	LXSSN1-045-24-01
		175-225	LXSSN1-045-24-02
		225-275	LXSSN1-045-24-03
		275-325	LXSSN1-045-24-04
		325-375	LXSSN1-045-24-05

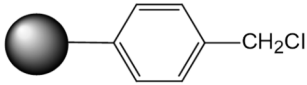


Product Name	Resin Funtional Groups	Substitution	Catalog No.
Seplife® 2'-O-MOE-G(iBu)-OH Resin		125-175	LXSSN1-045-25-01
		175-225	LXSSN1-045-25-02
		225-275	LXSSN1-045-25-03
		275-325	LXSSN1-045-25-04
		325-375	LXSSN1-045-25-05
Seplife® 2'-O-MOE-U-OH Resin		125-175	LXSSN1-045-26-01
		175-225	LXSSN1-045-26-02
		225-275	LXSSN1-045-26-03
		275-325	LXSSN1-045-26-04
		325-375	LXSSN1-045-26-05
Seplife® Abasic-OH Resin		125-175	LXSSN1-045-52-01
		175-225	LXSSN1-045-52-02
		225-275	LXSSN1-045-52-03
		275-325	LXSSN1-045-52-04
		325-375	LXSSN1-045-52-05
Seplife® Reverse Abasic-OH Resin		125-175	LXSSN1-045-53-01
		175-225	LXSSN1-045-53-02
		225-275	LXSSN1-045-53-03
		275-325	LXSSN1-045-53-04
		325-375	LXSSN1-045-53-05
Seplife® C6-Phthalimido-OH Resin		125-175	LXSSN1-045-56-01
		175-225	LXSSN1-045-56-02
		225-275	LXSSN1-045-56-03
		275-325	LXSSN1-045-56-04
		325-375	LXSSN1-045-56-05
Seplife® GalNAc-NH Resin		125-175	LXSSN2-150-54-01

* Substitution degree customized according to customers' demand

Chloromethyl resin (Merrifield resin)

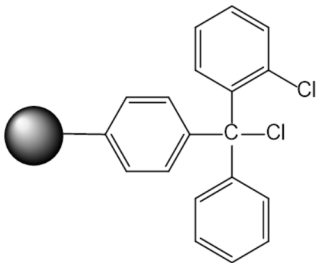
The Merrifield resin has in the past been the standard support for the synthesis of peptide acids by Boc strategy. Originally, the cesium salt of a protected amino acid was anchored to the chloromethyl support via nucleophilic displacement of chlorine. Although, Me4N salts, sodium salts in THF with Bu4NF catalysis and more recently Zinc salts in EtOH have also been used. Cleavage can be acheived by treatment of resin with HF or TFMSA, by hydrogenolysis, and by treatment with trimethyltin hydroxide. Alcohols can be released using reducing agents such as diisobutylaluminium hydride or LiBH4. Methyl esters can be produced by transesterification with methoxide. Alcohols can coupled to chloromethyl resin by heating together in DMF the resin and corresponding potassium or sodium alkoxide.



Catalog No.	Particle size (mesh)	Loading (mmol/g resin)
LXSS02-1-1201	100-200 200-400	0.4-0.6
LXSS02-1-1202	100-200 200-400	0.6-0.8
LXSS02-1-1203	100-200 200-400	0.8-1.0
LXSS02-1-1204	100-200 200-400	1.0-1.2
LXSS02-1-1205	100-200 200-400	1.2-1.4
LXSS02-1-1206	100-200 200-400	1.4-1.6
LXSS02-1-1207	100-200 200-400	1.6-2.0
LXSS02-1-1208	100-200 200-400	2.0-2.4
LXSS02-1-1209	100-200 200-400	2.4-2.8
LXSS02-1-1210	100-200 200-400	2.8-3.4
LXSS02-1-1211	100-200 200-400	3.4-4.0

2-Chlorotrityl chloride resin (2-CTC resin)

An extremely acid-labile resin for preparing peptides and partially protected peptide fragments by the Fmoc strategy. This resin is ideal for use in the preparation of peptides containing C-terminal Cys, His, Met, Tyr and Pro residues. Cleavage for protected peptides from this matrix can be acheived by treatment with AcOH/TFE/DCM, 0.5% TFA or HFIP. Fully deprotected peptides can also be obtained by cleaving with 95% TFA in the usual manner.

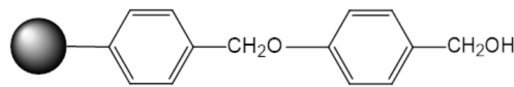


Catalog No.	Particle size (mesh)	Loading (mmol/g resin)
LXSS03-1-1201	100-200 200-400	0.4-0.6
LXSS03-1-1202	100-200 200-400	0.6-0.8
LXSS03-1-1203	100-200 200-400	0.8-1.0
LXSS03-1-1204	100-200 200-400	1.0-1.2
LXSS03-1-1205	100-200 200-400	1.2-1.4
LXSS03-1-1206	100-200 200-400	1.4-1.6

Wang resin

4-Benzyloxybenzy Alcohol resin (Wang resin)

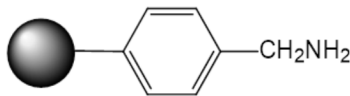
Wang resin is the most widely used resin for SPPS. As a standard support it can be used for the solid phase immobilization of acids and phenols for SPPS. The ester linkage may be achieved, which has good stability to a variety of reaction conditions, but can be readily removed with the moderate acid treatment, generally with TFA. For the immobilization of amines, Wang resin also can be readily converted into solid phase equivalents of standard urethane-based protecting groups by reaction with phosgene or activated carbonates, such as carbonyl diimidazole or bis(p-nitrophenyl)-carbonate.



Catalog No.	Particle size (mesh)	Loading (mmol/g resin)
LXSS04-1-1201	100-200 200-400	0.4-0.6
LXSS04-1-1202	100-200 200-400	0.6-0.8
LXSS04-1-1203	100-200 200-400	0.8-1.0
LXSS04-1-1204	100-200 200-400	1.0-1.2
LXSS04-1-1205	100-200 200-400	1.2-1.4
LXSS04-1-1206	100-200 200-400	1.4-1.6
LXSS04-1-1207	100-200 200-400	1.6-2.0

Aminomethyl resin

The Aminomethyl resin is one of the most widely used functionalized supports for solid-phase synthesis. Many supports can be made by acylating this resin with carboxylic acid-containing linkers using standard methods of amide bond formation to furnish supports for SPPS. It is also used as a scavenger resin in solution phase synthesis to remove excess acids, alkylating agents and other electrophiles.

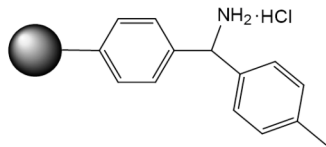


Catalog No.	Particle size (mesh)	Loading (mmol/g resin)
LXSS05-1-1201	100-200 200-400	0.4-0.6
LXSS05-1-1202	100-200 200-400	0.6-0.8
LXSS05-1-1203	100-200 200-400	0.8-1.0
LXSS05-1-1204	100-200 200-400	1.0-1.2
LXSS05-1-1205	100-200 200-400	1.2-1.4
LXSS05-1-1206	100-200 200-400	1.4-1.6
LXSS05-1-1207	100-200 200-400	1.6-2.0
LXSS05-1-1208	100-200 200-400	2.0-2.4
LXSS05-1-1209	100-200 200-400	2.4-3.0

MBHA resin

4-methylbenzhydramine Hydrochloride Salt Resin (MBHA resin)

MBHA resin is used in the synthesis of peptide amide by Boc chemistry. This support is more acid sensitive than BHA resin, and thus allow release of the product to be acheived by HF or TFMSA under less drastic conditions.

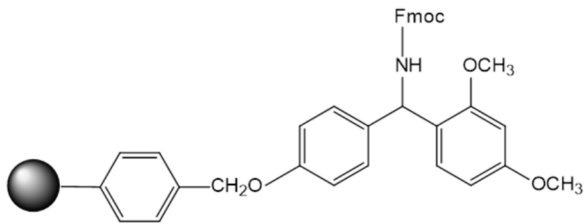


Catalog No.	Particle size (mesh)	Loading (mmol/g resin)
LXSS06-1-1201	100-200 200-400	0.3-0.6
LXSS06-1-1202	100-200 200-400	0.6-0.8
LXSS06-1-1203	100-200 200-400	0.8-1.0
LXSS06-1-1204	100-200 200-400	1.0-1.2
LXSS06-1-1205	100-200 200-400	1.2-1.4
LXSS06-1-1206	100-200 200-400	1.4-1.6

Rink amide resin

4-(2', 4'-Dimethoxyphenyl-Fmoc-aminomethyl)-phenoxymethyl resin

Rink amide resin is an excellent support for the Fmoc SPPS of peptide amides. This resin is more acid sensitive than Rink Amide-AM and Rink Amide-MBHA resins. Cleavage with high concentrations of TFA can lead to the breakdown of the linker, with the concomitant formation of by-products that can not be removed by simple washes. These problems appear to be minimized through the use of low TFA concentrations or by the addition of trialkylsilanes to the cleavage mixture.

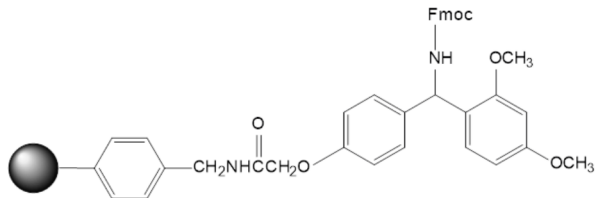


Catalog No.	Particle size (mesh)	Loading (mmol/g resin)
LXSS07-1-1201	100-200 200-400	0.3-0.6
LXSS07-1-1202	100-200 200-400	0.6-0.8
LXSS07-1-1203	100-200 200-400	0.8-1.0

Rink Amide-AM resin

4-(2',4'-Dimethoxyphenyl-Fmoc-aminomethyl)-phenoxyacetamido-AM resin

This resin comprises the modified Rink amide linker attached to aminomethyl resin, and is an ideal tool for the Fmoc SPPS of peptide amides. Cleavage from this resin can be achieved by treatment with 95% TFA, providing peptide amides in high yields and purities.

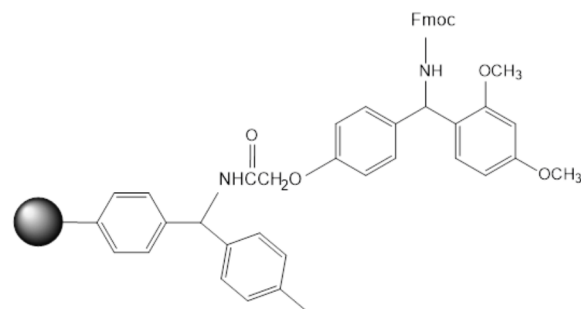


Catalog No.	Particle size (mesh)	Loading (mmol/g resin)
LXSS08-1-1201	100-200 200-400	0.3-0.6
LXSS08-1-1202	100-200 200-400	0.6-0.8
LXSS08-1-1203	100-200 200-400	0.8-1.0

Rink Amide-MBHA resin

4-(2',4'-Dimethoxyphenyl-Fmoc-aminomethyl)-phenoxyacetamido-MBHA resin

This resin comprises the modified Rink amide linker attached to MBHA resin, and is an ideal tool for the Fmoc SPPS of peptide amides. Cleavage for this resin can be achieved by treatment with 95% TFA, providing peptide amides in high yields and purities.

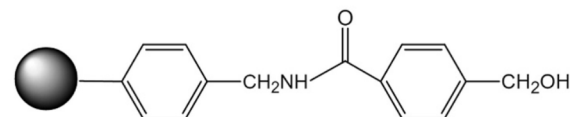


Catalog No.	Particle size (mesh)	Loading (mmol/g resin)
LXSS09-1-1201	100-200 200-400	0.4-0.6
LXSS09-1-1202	100-200 200-400	0.6-0.8
LXSS09-1-1203	100-200 200-400	0.8-1.0

HMBA-AM resin

4-Hydroxymethylbenzoic acid AM resin

This resin is derived from aminomethyl polystyrene and the base labile 4-(hydroxymethyl)benzoic acid linker. It is a versatile support for the immobilization of carboxylic acids. The resulting ester bond is stable to strong acids but is cleaved by nucleophiles like amines, hydrazine or alkoxides.

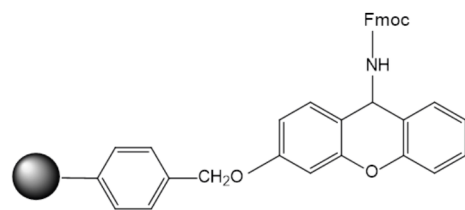


Catalog No.	Particle size (mesh)	Loading (mmol/g resin)
LXSS13-1-1401	100-200 200-400	0.4-0.8
LXSS13-1-1402	100-200 200-400	0.8-1.2

Sieber resin

9-Fmoc-Aminoxanthen-3-yloxy-polystyrene resin

A hyper acid-labile linker or the Fmoc SPPS of protected amides via mild 1% TFA cleavage. The resin can be readily reductively alkylated to provide a support suited to the synthesis of secondary carboxamides. This resin has also been employed to produce protected peptide fragments in which the C-terminal carboxylic acid group is blocked as a hydroxymethylphenoxy-β-alaninamide ester.

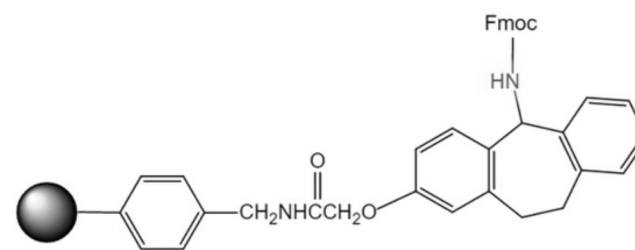


Catalog No.	Particle size (mesh)	Loading (mmol/g resin)
LXSS10-1-1401	100-200 200-400	0.2-0.4
LXSS10-1-1402	100-200 200-400	0.4-0.6
LXSS10-1-1403	100-200 200-400	0.6-0.8

Ramage-AM resin

2-[[[(R,S)-5-(9-Fluorenylmethyloxycarbonyl-amino)-10,11-dihydro-5H-dibenzo[a,d]cycloheptene-2-yl]oxy]acetyl]-AM resin

Ramage Amide AM resin comprises Ramage's dibenzocycloheptadiene linker attached to aminomethylated polystyrene. Following Fmoc removal, the resin can be acylated under standard conditions and used in Fmoc SPPS. The linker is considerably more acid sensitive than the Rink amide or PAL linkers. This enables peptide amides to be released from the resin with 3% TFA in DCM and thus makes it a useful tool for the synthesis of acid sensitive peptides or protected peptide fragments.

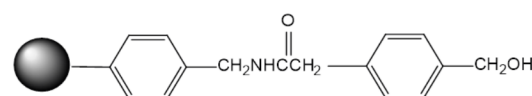


Catalog No.	Particle size (mesh)	Loading (mmol/g resin)
LXSS14-1-1401	100-200 200-400	0.3-0.6
LXSS14-1-1402	100-200 200-400	0.6-0.8
LXSS14-1-1403	100-200 200-400	0.8-1.0

PAM resin

4-Hydroxymethyl-phenylacetamidomethyl resin

PAM resin has become the most widely used resin in Boc chemistry peptide synthesis. It has greater acid stability than Merrifield resin, making it suitable for synthesizing medium and large peptides, such as DNA binding polyamines, human matrix Gla protein (MGP), Kappa-casein. The first carboxylic acid is attached to PAM resin using an activating agent such as DCC and DMAP. These conditions can lead to partial epimerization of the amino acids, so HOBT is normally added to reduce racemization.

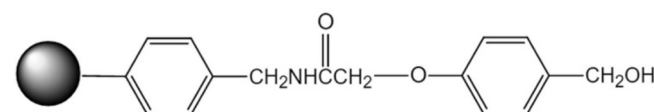


Catalog No.	Particle size (mesh)	Loading (mmol/g resin)
LXSS11-1-1401	100-200 200-400	0.4-0.8
LXSS11-1-1402	100-200 200-400	0.8-1.2

HMPA-AM resin

4-(Hydroxymethyl)phenoxyaceamidomethyl polystyrene

This resin is derivatized from aminomethyl polystyrene by coupling with the TFA-labile 4-(hydroxymethyl)-phenoxyacetic acid linker and is an alternative to the Wang resins.

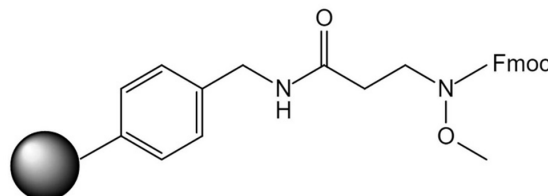


Catalog No.	Particle size (mesh)	Loading (mmol/g resin)
LXSS15-1-1401	100-200 200-400	0.4-0.8
LXSS15-1-1402	100-200 200-400	0.8-1.2

Weinreb-AM resin

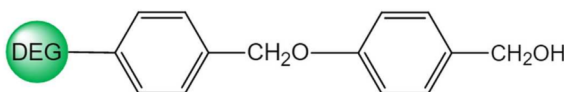
N-Fmoc- N-methoxy- β -alanine AM resin

This support is useful for the production of peptide aldehydes and other carboxaldehydes. Following removal of the Fmoc group with 20% piperidine in DMF, acylation of the resin-bound methoxylamine is best effected using DIPCDI/HOAt or HATU/DIPEA activation. This results in formation of a supported Weinreb-type amide which can be either reduced to an aldehyde with LiAlH₄ or cleaved with Grignard reagents to give ketones.



DEG-Wang resin

Replacing the cross-linking agent divinylbenzene in traditional solid-phase synthesis carriers with DEG, which has a longer molecular chain and greater flexibility, improves the extensibility of the styrene cross-linking network, enhances the solubility of the resin, and increases site accessibility. Currently, we offer Wang resin, AM resin, and other products are under development.



DEG-AM resin



Catalog No.	Particle size (mesh)	Loading (mmol/g resin)
LXSS30-1-1401	100-200 200-400	0.4-0.7
LXSS30-1-1402	100-200 200-400	0.7-1.0

Catalog No.	Particle size (mesh)	Loading (mmol/g resin)
LXSS26-1-1401	100-200 200-400	0.4-0.8
LXSS26-1-1402	100-200 200-400	0.8-1.2
LXSS26-1-1403	100-200 200-400	1.2-1.6
LXSS26-1-1404	100-200 200-400	1.6-2.0

Catalog No.	Particle size (mesh)	Loading (mmol/g resin)
LXSS22-1-1401	100-200 200-400	0.5-1.0
LXSS22-1-1402	100-200 200-400	1.0-1.5
LXSS22-1-1403	100-200 200-400	1.5-2.0



Pre-loaded Amino Acid Resins

1. Boc-AA-Merrifield resin

Product Name	Catalog No.	Particle size (mesh)	Loading (mmol/g resin)
Boc-Ala-Merrifield resin	LXSSBM01	100-200 200-400	0.3-0.6 0.6-0.8
Boc-Arg(Tos)-Merrifield resin	LXSSBM02	100-200 200-400	0.3-0.6 0.6-0.8
Boc-Asn-Merrifield resin	LXSSBM03	100-200 200-400	0.3-0.6 0.6-0.8
Boc-Asp(OBzl)-Merrifield resin	LXSSBM04	100-200 200-400	0.3-0.6 0.6-0.8
Boc-Cys(Acm)-Merrifield resin	LXSSBM05	100-200 200-400	0.3-0.6 0.6-0.8
Boc-Gln-Merrifield resin	LXSSBM06	100-200 200-400	0.3-0.6 0.6-0.8
Boc-Glu(OBzl)-Merrifield resin	LXSSBM07	100-200 200-400	0.3-0.6 0.6-0.8
Boc-Gly-Merrifield resin	LXSSBM08	100-200 200-400	0.3-0.6 0.6-0.8
Boc-His(Tos)-Merrifield resin	LXSSBM09	100-200 200-400	0.3-0.6 0.6-0.8
Boc-Ile-Merrifield resin	LXSSBM10	100-200 200-400	0.3-0.6 0.6-0.8
Boc-Leu-Merrifield resin	LXSSBM11	100-200 200-400	0.3-0.6 0.6-0.8
Boc-Lys(2-Cl-Z)-Merrifield resin	LXSSBM12	100-200 200-400	0.3-0.6 0.6-0.8
Boc-Met-Merrifield resin	LXSSBM13	100-200 200-400	0.3-0.6 0.6-0.8
Boc-Phe-Merrifield resin	LXSSBM14	100-200 200-400	0.3-0.6 0.6-0.8
Boc-Pro-Merrifield resin	LXSSBM15	100-200 200-400	0.3-0.6 0.6-0.8
Boc-Ser(Bzl)-Merrifield resin	LXSSBM16	100-200 200-400	0.3-0.6 0.6-0.8
Boc-Thr(Bzl)-Merrifield resin	LXSSBM17	100-200 200-400	0.3-0.6 0.6-0.8
Boc-Trp-Merrifield resin	LXSSBM18	100-200 200-400	0.3-0.6 0.6-0.8
Boc-Tyr(Bzl)-Merrifield resin	LXSSBM19	100-200 200-400	0.3-0.6 0.6-0.8
Boc-Val-Merrifield resin	LXSSBM20	100-200 200-400	0.3-0.6 0.6-0.8

2. Boc-AA-MBHA resin

Product Name	Catalog No.	Particle size (mesh)	Loading (mmol/g resin)
Boc-Ala-MBHA resin	LXSSBB01	100-200 200-400	0.3-0.6 0.6-0.8
Boc-Arg(Tos)-MBHA resin	LXSSBB02	100-200 200-400	0.3-0.6 0.6-0.8
Boc-Asn-MBHA resin	LXSSBB03	100-200 200-400	0.3-0.6 0.6-0.8
Boc-Asp(OBzl)-MBHA resin	LXSSBB04	100-200 200-400	0.3-0.6 0.6-0.8
Boc-Cys(Acm)-MBHA resin	LXSSBB05	100-200 200-400	0.3-0.6 0.6-0.8
Boc-Gln-MBHA resin	LXSSBB06	100-200 200-400	0.3-0.6 0.6-0.8
Boc-Glu(OBzl)-MBHA resin	LXSSBB07	100-200 200-400	0.3-0.6 0.6-0.8
Boc-Gly-MBHA resin	LXSSBB08	100-200 200-400	0.3-0.6 0.6-0.8
Boc-His(Tos)-MBHA resin	LXSSBB09	100-200 200-400	0.3-0.6 0.6-0.8
Boc-Ile-MBHA resin	LXSSBB10	100-200 200-400	0.3-0.6 0.6-0.8
Boc-Leu-MBHA resin	LXSSBB11	100-200 200-400	0.3-0.6 0.6-0.8
Boc-Lys(2-Cl-Z)-MBHA resin	LXSSBB12	100-200 200-400	0.3-0.6 0.6-0.8
Boc-Met-MBHA resin	LXSSBB13	100-200 200-400	0.3-0.6 0.6-0.8
Boc-Phe-MBHA resin	LXSSBB14	100-200 200-400	0.3-0.6 0.6-0.8
Boc-Pro-MBHA resin	LXSSBB15	100-200 200-400	0.3-0.6 0.6-0.8
Boc-Ser(Bzl)-MBHA resin	LXSSBB16	100-200 200-400	0.3-0.6 0.6-0.8
Boc-Thr(Bzl)-MBHA resin	LXSSBB17	100-200 200-400	0.3-0.6 0.6-0.8
Boc-Trp-MBHA resin	LXSSBB18	100-200 200-400	0.3-0.6 0.6-0.8
Boc-Tyr(Bzl)-MBHA resin	LXSSBB19	100-200 200-400	0.3-0.6 0.6-0.8
Boc-Val-MBHA resin	LXSSBB20	100-200 200-400	0.3-0.6 0.6-0.8

3. Boc-AA-PAM resin

Product Name	Catalog No.	Particle size (mesh)	Loading (mmol/g resin)
Boc-Ala-PAM resin	LXSSBP01	100-200 200-400	0.3-0.6 0.6-0.8
Boc-Arg(Tos)-PAM resin	LXSSBP02	100-200 200-400	0.3-0.6 0.6-0.8
Boc-Asn-PAM resin	LXSSBP03	100-200 200-400	0.3-0.6 0.6-0.8
Boc-Asp(OBzl)-PAM resin	LXSSBP04	100-200 200-400	0.3-0.6 0.6-0.8
Boc-Cys(Acm)-PAM resin	LXSSBP05	100-200 200-400	0.3-0.6 0.6-0.8
Boc-Gln-PAM resin	LXSSBP06	100-200 200-400	0.3-0.6 0.6-0.8
Boc-Glu(OBzl)-PAM resin	LXSSBP07	100-200 200-400	0.3-0.6 0.6-0.8
Boc-Gly-PAM resin	LXSSBP08	100-200 200-400	0.3-0.6 0.6-0.8
Boc-His(Tos)-PAM resin	LXSSBP09	100-200 200-400	0.3-0.6 0.6-0.8
Boc-Ile-PAM resin	LXSSBP10	100-200 200-400	0.3-0.6 0.6-0.8
Boc-Leu-PAM resin	LXSSBP11	100-200 200-400	0.3-0.6 0.6-0.8
Boc-Lys(2-Cl-Z)-PAM resin	LXSSBP12	100-200 200-400	0.3-0.6 0.6-0.8
Boc-Met-PAM resin	LXSSBP13	100-200 200-400	0.3-0.6 0.6-0.8
Boc-Phe-PAM resin	LXSSBP14	100-200 200-400	0.3-0.6 0.6-0.8
Boc-Pro-PAM resin	LXSSBP15	100-200 200-400	0.3-0.6 0.6-0.8
Boc-Ser(Bzl)-PAM resin	LXSSBP16	100-200 200-400	0.3-0.6 0.6-0.8
Boc-Thr(Bzl)-PAM resin	LXSSBP17	100-200 200-400	0.3-0.6 0.6-0.8
Boc-Trp-PAM resin	LXSSBP18	100-200 200-400	0.3-0.6 0.6-0.8
Boc-Tyr(Bzl)-PAM resin	LXSSBP19	100-200 200-400	0.3-0.6 0.6-0.8
Boc-Val-PAM resin	LXSSBP20	100-200 200-400	0.3-0.6 0.6-0.8

H-AA- Merrifield resin, H-AA-MBHA resin, H-AA-PAM resin.

4. Fmoc-AA-Wang resin

Product Name	Catalog No.	Particle size (mesh)	Loading (mmol/g resin)
Fmoc-Ala-Wang resin	LXSSFW01	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-Arg(Pbf)-Wang resin	LXSSFW02	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-Asn(Trt)-Wang resin	LXSSFW03	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-Asp(OtBu)-Wang resin	LXSSFW04	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-Cys(Trt)-Wang resin	LXSSFW05	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-Gln(Trt)-Wang resin	LXSSFW06	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-Glu(OtBu)-Wang resin	LXSSFW07	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-Gly-Wang resin	LXSSFW08	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-His(Trt)-Wang resin	LXSSFW09	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-Ile-Wang resin	LXSSFW10	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-Leu-Wang resin	LXSSFW11	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-Lys(Boc)-Wang resin	LXSSFW12	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-Met-Wang resin	LXSSFW13	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-Phe-Wang resin	LXSSFW14	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-Pro-Wang resin	LXSSFW15	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-Ser(tBu)-Wang resin	LXSSFW16	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-Thr(tBu)-Wang resin	LXSSFW17	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-Trp-Wang resin	LXSSFW18	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-Tyr(tBu)-Wang resin	LXSSFW19	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-Val-Wang resin	LXSSFW20	100-200 200-400	0.3-0.6 0.6-0.8

5. Fmoc-AA-Rink-MBHA resin

Product Name	Catalog No.	Particle size (mesh)	Loading (mmol/g resin)
Fmoc-Ala-Rink-MBHAResin	LXSSFK01	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-Arg(Pbf)-Rink-MBHAResin	LXSSFK02	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-Asn(Trt)-Rink-MBHAResin	LXSSFK03	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-Asp(OtBu)-Rink-MBHAResin	LXSSFK04	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-Cys(Trt)-Rink-MBHAResin	LXSSFK05	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-Gln(Trt)-Rink-MBHAResin	LXSSFK06	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-Glu(OtBu)-Rink-MBHAResin	LXSSFK07	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-Gly-Rink-MBHAResin	LXSSFK08	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-His(Trt)-Rink-MBHAResin	LXSSFK09	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-Ile-Rink-MBHAResin	LXSSFK10	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-Leu-Rink-MBHAResin	LXSSFK11	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-Lys(Boc)-Rink-MBHAResin	LXSSFK12	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-Met-Rink-MBHAResin	LXSSFK13	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-Phe-Rink-MBHAResin	LXSSFK14	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-Pro-Rink-MBHAResin	LXSSFK15	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-Ser(tBu)-Rink-MBHAResin	LXSSFK16	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-Thr(tBu)-Rink-MBHAResin	LXSSFK17	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-Trp-Rink-MBHAResin	LXSSFK18	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-Tyr(tBu)-Rink-MBHAResin	LXSSFK19	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-Val-Rink-MBHAResin	LXSSFK20	100-200 200-400	0.3-0.6 0.6-0.8

6. Fmoc-AA-Rink Amide Resin

Product Name	Catalog No.	Particle size (mesh)	Loading (mmol/g resin)
Fmoc-Ala-Rink Amide resin	LXSSFR01	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-Arg(Pbf)-Rink Amide resin	LXSSFR02	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-Asn(Trt)-Rink Amide resin	LXSSFR03	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-Asp(OtBu)-Rink Amide resin	LXSSFR04	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-Cys(Trt)-Rink Amide resin	LXSSFR05	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-Gln(Trt)-Rink Amide resin	LXSSFR06	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-Glu(OtBu)-Rink Amide resin	LXSSFR07	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-Gly-Rink Amide resin	LXSSFR08	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-His(Trt)-Rink Amide resin	LXSSFR09	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-Ile-Rink Amide resin	LXSSFR10	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-Leu-Rink Amide resin	LXSSFR11	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-Lys(Boc)-Rink Amide resin	LXSSFR12	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-Met-Rink Amide resin	LXSSFR13	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-Phe-Rink Amide resin	LXSSFR14	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-Pro-Rink Amide resin	LXSSFR15	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-Ser(tBu)-Rink Amide resin	LXSSFR16	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-Thr(tBu)-Rink Amide resin	LXSSFR17	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-Trp-Rink Amide resin	LXSSFR18	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-Tyr(tBu)-Rink Amide resin	LXSSFR19	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-Val-Rink Amide resin	LXSSFR20	100-200 200-400	0.3-0.6 0.6-0.8

7. Fmoc-AA-Rink-AM Resin

Product Name	Catalog No.	Particle size (mesh)	Loading (mmol/g resin)
Fmoc-Ala-Rink-AM resin	LXSSFA01	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-Arg(Pbf)-Rink-AM resin	LXSSFA02	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-Asn(Trt)-Rink-AM resin	LXSSFA03	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-Asp(OtBu)-Rink-AM resin	LXSSFA04	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-Cys(Trt)-Rink-AM resin	LXSSFA05	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-Gln(Trt)-Rink-AM resin	LXSSFA06	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-Glu(OtBu)-Rink-AM resin	LXSSFA07	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-Gly-Rink-AM resin	LXSSFA08	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-His(Trt)-Rink-AM resin	LXSSFA09	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-Ile-Rink-AM resin	LXSSFA10	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-Leu-Rink-AM resin	LXSSFA11	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-Lys(Boc)-Rink-AM resin	LXSSFA12	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-Met-Rink-AM resin	LXSSFA13	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-Phe-Rink-AM resin	LXSSFA14	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-Pro-Rink-AM resin	LXSSFA15	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-Ser(tBu)-Rink-AM resin	LXSSFA16	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-Thr(tBu)-Rink-AM resin	LXSSFA17	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-Trp-Rink-AM resin	LXSSFA18	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-Tyr(tBu)-Rink-AM resin	LXSSFA19	100-200 200-400	0.3-0.6 0.6-0.8
Fmoc-Val-Rink-AM resin	LXSSFA20	100-200 200-400	0.3-0.6 0.6-0.8

H-AA-Wang resin, H-AA-Rink-MBHA resin, H-AA- Rink Amide resin, H-AA- Rink-AM resin.

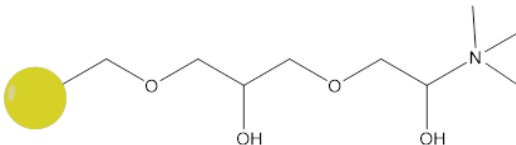


8. H-AA-CTC resin

Product Name	Catalog No.	Particle size (mesh)	Loading (mmol/g resin)
H-Ala-CTC resin	LXSSAC01	100-200 200-400	0.3-0.6 0.6-0.8
H-Arg(Pbf)-CTC resin	LXSSAC02	100-200 200-400	0.3-0.6 0.6-0.8
H-Asn(Trt)-CTC resin	LXSSAC03	100-200 200-400	0.3-0.6 0.6-0.8
H-Asp(OtBu)-CTC resin	LXSSAC04	100-200 200-400	0.3-0.6 0.6-0.8
H-Cys(Trt)-CTC resin	LXSSAC05	100-200 200-400	0.3-0.6 0.6-0.8
H-Gln(Trt)-CTC resin	LXSSAC06	100-200 200-400	0.3-0.6 0.6-0.8
H-Glu(OtBu)-CTC resin	LXSSAC07	100-200 200-400	0.3-0.6 0.6-0.8
H-Gly-CTC resin	LXSSAC08	100-200 200-400	0.3-0.6 0.6-0.8
H-His(Trt)-CTC resin	LXSSAC09	100-200 200-400	0.3-0.6 0.6-0.8
H-Ile-CTC resin	LXSSAC10	100-200 200-400	0.3-0.6 0.6-0.8
H-Leu-CTC resin	LXSSAC11	100-200 200-400	0.3-0.6 0.6-0.8
H-Lys(Boc)-CTC resin	LXSSAC12	100-200 200-400	0.3-0.6 0.6-0.8
H-Met-CTC resin	LXSSAC13	100-200 200-400	0.3-0.6 0.6-0.8
H-Phe-CTC resin	LXSSAC14	100-200 200-400	0.3-0.6 0.6-0.8
H-Pro-CTC resin	LXSSAC15	100-200 200-400	0.3-0.6 0.6-0.8
H-Ser(tBu)-CTC resin	LXSSAC16	100-200 200-400	0.3-0.6 0.6-0.8
H-Thr(tBu)-CTC resin	LXSSAC17	100-200 200-400	0.3-0.6 0.6-0.8
H-Trp-CTC resin	LXSSAC18	100-200 200-400	0.3-0.6 0.6-0.8
H-Tyr(tBu)-CTC resin	LXSSAC19	100-200 200-400	0.3-0.6 0.6-0.8
H-Val-CTC resin	LXSSAC20	100-200 200-400	0.3-0.6 0.6-0.8

1. Oligonucleotide purification material

Oligo's commonly used fillers are mainly polymer chromatography fillers. Currently, the most common used ones in the market are monodisperse reversed-phase chromatography fillers and monodisperse ion-exchange chromatography fillers. The information of these two types of fillers is as follows:

	Seplife® LXMS-15	Seplife® LXMS-15Q	Seplife® LXMS-30	Seplife® LXMS-30Q
Backbone	Polystyrene/Divinylbenzene (DVB)			
Functional group	Q: 			
Appearance	Milky white or light yellow opaque spherical particles			
Particle size (mm)	15±2		30±3	
Porosity (%)	60±5			
Pore size (nm)	45		50	
Exchange capacity (mmol/mL)	/	0.12	/	0.13
Dynamic loading capacity (mg/mL)	/	50(BSA)	/	45(BSA)
pH Stability	pH=1 or 14(Wash), pH=2-13(Preservation)			
Max pressure (bar)	50	20	40	15
Linear flow rate (cm/h)	300-1200		300-1000	
Storage	20% EtOH aqueous solution			

2. Other Chromatography Materials

Sunresin's chromatography packing materials cover different backbones and ion types, including polystyrene, acrylic acid, agarose, dextran, etc. Some product information is listed as the following:

· Ion Exchange Chromatography Packing Material

Product Name	Particulatesize (μm)	Backbone Type	pH
seplife®LXMS-15Q	15	Polystyrene/DVB	1-14
seplife®LXMS-15SP	15	Polystyrene/DVB	1-14
seplife®LXMS-15CM	15	Polystyrene/DVB	1-14
seplife®LXMS-15DEAE	15	Polystyrene/DVB	1-14
seplife®LXMS-30Q	30	Polystyrene/DVB	1-14
seplife®LXMS-30SP	30	Polystyrene/DVB	1-14
seplife®LXMS-30CM	30	Polystyrene/DVB	1-14
seplife®LXMS-30DEAE	30	Polystyrene/DVB	1-14
seplife®LXM-DEAE100	75/40	polymethacrylate	1-14
seplife®LXM-Q100	75/40	polymethacrylate	1-14
seplife®LXM-CM100	75/40	polymethacrylate	1-14
seplife®LXM-SP100	75/40	polymethacrylate	1-14
seplife®LX-Q650	75/40	polymethacrylate	1-14
seplife®LX-DEAE650	75/40	polymethacrylate	1-14
seplife®LX-SP650	75/40	polymethacrylate	1-14
seplife®LX-CM650	75/40	polymethacrylate	1-14
seplife®LX-Q400	75/40	polymethacrylate	1-14

· Polymer Reverse Phase Chromatography Material

Catalog No.	Particle size (μm)	Average pore size (Å)	Matrix
seplife® RP LXMS-5	5	100,300,500	PST-DVB
seplife® RP LXMS-10	10	100,300,500	PST-DVB
seplife® RP LXMS-15	15	100,300,500	PST-DVB
seplife® RP LXMS-30	30	100,300,500	PST-DVB
seplife® RP LX-20SS	75	100,300,500	PST-DVB
seplife® RPLX-20SS(S)	40	100,300,500	PST-DVB
seplife® RP LX-16SS	75	100,300,500	PST-DVB
seplife® RPLX-16SS(S)	40	100,300,500	PST-DVB
seplife® RP LX-21SS	75	100,300,500	PST-DVB
seplife® RPLX-21SS(S)	40	100,300,500	PST-DVB
seplife® RP LX-55SS	75	100,300,500	PST-DVB
seplife® RPLX-55SS(S)	40	100,300,500	PST-DVB

· Agarose Chromatography Material

Chromatography Function Type	Major Products
(GF)Gel Filtration	4B、6B / CL-4B、CL-6B / 4FF、6FF
(IEX)Ion Exchange	High flow rate series(FF): DEAE / Q / CM / SP
	High resolution series(HP): DEAE / Q / CM / SP
	High loading series(XL): DEAE / Q / CM / SP
(AC)Affinity chromatography	Metal Chelation(IDA,NTA,TED) / Protein A/Benomyl / Heparin / Boric Acid / Blue Sepharose
(HIC)Hydrophobic chromatography	High flow rate series(FF): Phenyl / butyl
	High resolution series(HP): Phenyl / butyl
	butyl 4B
Multimodal chromatography	MMC / adhere / HEA / PPA