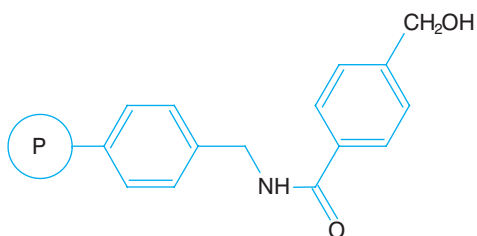


PL-HMBA Resin (1)



Description

4-Hydroxymethylbenzoic acid AMS resin

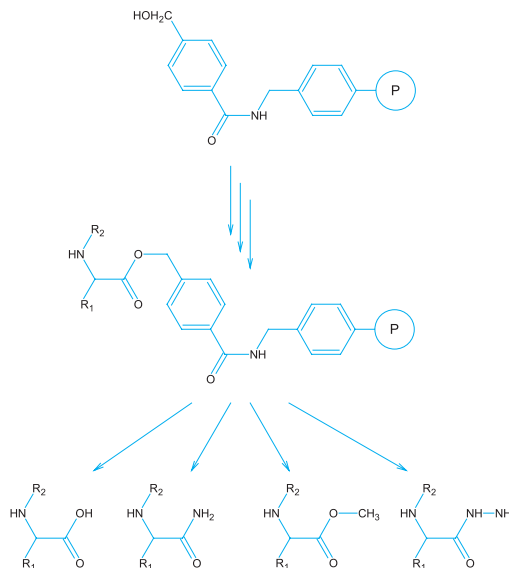
Synonyms

Sheppard's base labile resin

Applications

The HMBA linker was introduced by Atherton and Sheppard to allow synthesis of peptide amides and related compounds. Unlike the analogous chloromethylstyrene or hydroxymethylstyrene resins, the benzyl ester linkage formed with PL-HMBA Resin is stable to treatment with strong acid.

The product can be cleaved with a variety of nucleophiles resulting in further useful synthetic transformations. Cleavage as acids can be accomplished using saponification with NaOH solutions, alternatively, ammonolysis, esterification and hydrazinolysis result in production of amides, esters and hydrazides respectively.



References

- Atherton, E et al (1981), J Chem Soc, Perkin Trans 1, 538
Stewart, J M & Young, J D (1984), "Solid Phase Peptide Synthesis, 2nd Ed", Pierce Chemical Company, Rockford, Illinois, 91
Atherton, E & Sheppard, R C (1989), "Solid Phase Peptide Synthesis: A Practical Approach", IRL Press, Oxford, 152
Wellings, D (2000), in "Fmoc Solid Phase Peptide Synthesis: A Practical Approach", W C Chan & P D White (Eds), IRL Press, Oxford, 146
Aldrich, J V & Story, S C (1992), Int J Pept Protein Res, **39**, 87

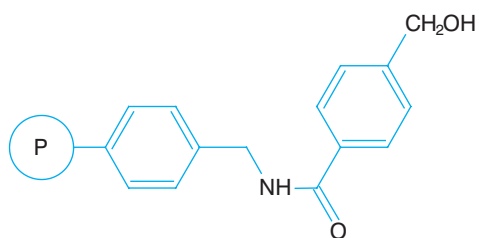
Products Information

Microporous

PL-HMBA Resin

0.9mmol/g 75-150 μ m (100-200 mesh)

PL-HMBA Resin (2) PL-HMS Resin



Description

4-Hydroxymethylbenzoic acid AMS resin

Synonyms

Sheppard's base labile resin

Applications

PL-HMBA Resin has found favour in the solid phase synthesis of small organic molecule libraries due to its acid stability. Unlike the analogous chloromethylstyrene or hydroxymethylstyrene resins, the benzyl ester linkage formed with PL-HMBA Resin is stable to treatment with strong acid.

The product can be cleaved with a variety of nucleophiles resulting in further useful synthetic transformations. Cleavage of acids can be accomplished using saponification with NaOH solutions, however ammonolysis, transesterification and hydrazinolysis result in production of amides, esters and hydrazides respectively.

References

Atherton, E et al (1981), J Chem Soc, Perkin Trans 1, 538
Nielsen, J (1996), Tetrahedron Lett, **37**, 1710
Hutchins, S M & Chapman, K T (1996), Tetrahedron Lett, **37**, 4869
Cheng, Y & Chapman, K T (1997), Tetrahedron Lett, **38**, 1497

Products Information

Microporous

PL-HMBA Resin

0.9mmol/g 75-150 μ m

PL-HMS Resin

2.0mmol/g 150-300 μ m



Description

4-Hydroxymethylpolystyrene

Synonyms

None

Applications

PL-HMS Resin can be used as an alternative to PL-CMS Resin in many instances. The key difference is that other loading chemistries are available for the attachment of the first amino acid (for peptide synthesis) or key building block (in solid phase organic chemistry).

References

Wang, S J (1975), J Org Chem, **40**, 1235
Goldwasser, J M et al (1978), Can J Chem, **56**, 1562
Burdick, D J et al (1993), Tetrahedron Lett, **34**, 2589
Anuradha, M V & Ravindranath, B (1995), Tetrahedron, **51**, 5671
Richter, L S & Gadek, T R (1994), Tetrahedron Lett, **35**, 4705
Pérez, R et al (2002), J Comb Chem, **4**, 501