

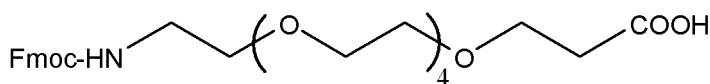
Pegylated Peptides-A Novel and successful approach to Drug Discovery with extensive and successful experience in custom synthesis of peptides, AnaSpec, supports custom synthesis of pegylated peptides via pegylation technology, for use in developing active pharmaceutical ingredients (API). Pegylation plays an important role in drug delivery, enhancing the potentials of proteins and peptides as therapeutic agents. Pegylation is the process of linking one or more repeating chains of ethylene oxide (CH<sub>2</sub>CH<sub>2</sub>O)<sub>x</sub> to a therapeutic peptide or protein. Pegylated derivatives can improve the therapeutic properties by improving the pharmacokinetics (solubility, stability, absorption, biopharmaceutical actions) and the pharmacodynamics (immunogenicity, antigenicity, proteolysis) profiles.

Our **custom peptide pegylation service** includes the following:

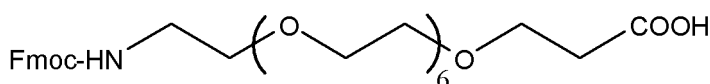
- Conjugation with high molecular weight PEGs up to 30 kDa.
- Activated PEG derivatives for different functional group conjugation.
- Pegylation at cysteine residue.

We also offer, short PEG linkers that can be used as a flexible spacer, when solubilizing bioconjugates are needed. Other PEG derivatives with high molecular weight PEGs such as (PEG)3400 and (PEG)5000 are also available for conjugating to peptides. Below is the list of some commonly used PEG derivatives for peptide conjugation.

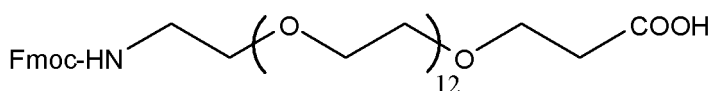
Product Name	Abbreviated Name
Fmoc-NH-(CH <sub>2</sub> CH <sub>2</sub> O) <sub>2</sub> -CH <sub>2</sub> CH <sub>2</sub> -COOH	Fmoc NH(PEG)2-OH
Fmoc-NH-(CH <sub>2</sub> CH <sub>2</sub> O) <sub>3</sub> -CH <sub>2</sub> CH <sub>2</sub> -COOH	Fmoc NH(PEG)3-OH
Fmoc-NH-(CH <sub>2</sub> CH <sub>2</sub> O) <sub>4</sub> -CH <sub>2</sub> CH <sub>2</sub> -COOH	Fmoc NH(PEG)4-OH
Fmoc-NH-(CH <sub>2</sub> CH <sub>2</sub> O) <sub>5</sub> -CH <sub>2</sub> CH <sub>2</sub> -COOH	Fmoc NH(PEG)5-OH
Fmoc-NH-(CH <sub>2</sub> CH <sub>2</sub> O) <sub>6</sub> -CH <sub>2</sub> CH <sub>2</sub> -COOH	Fmoc NH(PEG)6-OH
Fmoc-NH-(CH <sub>2</sub> CH <sub>2</sub> O) <sub>12</sub> -CH <sub>2</sub> CH <sub>2</sub> -COOH	Fmoc NH(PEG)12-OH
Fmoc-NH-(CH <sub>2</sub> CH <sub>2</sub> O) <sub>24</sub> -CH <sub>2</sub> CH <sub>2</sub> -COOH	Fmoc NH(PEG)24-OH
Fmoc-PEG <sub>2</sub> -Suc-OH	Fmoc-Ebes-OH
Fmoc-PEG <sub>2</sub> -Suc-OH	Fmoc-Ebes-OH



PEG 4 linker, 19.2A

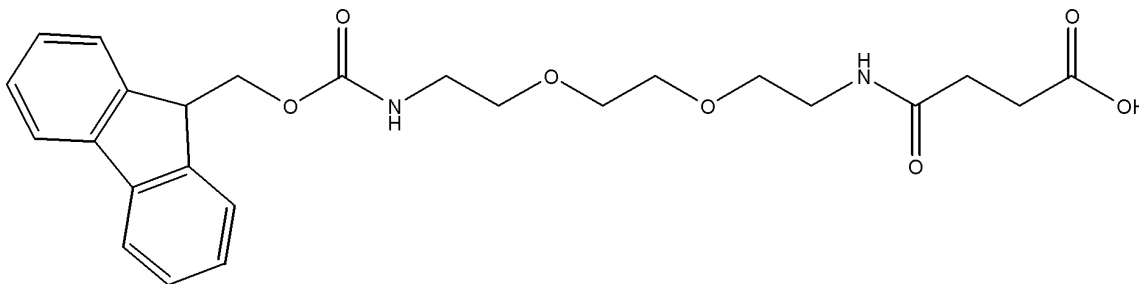


PEG 6 linker, 26.5A



PEG 12 linker, 46.5A

- Fmoc-PEG<sub>2</sub>-Suc-OH (Fmoc-Ebes-OH (N-(Fmoc-8-amino-3,6-dioxa-octyl) succinamic acid)); cat# 61924; -linear, flexible, well-defined molecular mass, and hydrophilic spacer, ideal for labeling peptides in solid phase peptide synthesis.



Reference:

1. Harris, J. et al. *Clin. Pharmacokin.* **40**, 539 (2001).
2. Chess, B. et al. *Nat. Rev. Drug. Disc.* **2**, 214 (2003).
3. Veronese, M. et al. *Drug. Disc.* **10**, 32 (2005).
4. Song, A. et al. *Bioorg. Med. Chem. Lett.* **14**, 161 (2004).
5. Song, A. et al. *J. Am. Chem. Soc.* **125**, 6180 (2003).