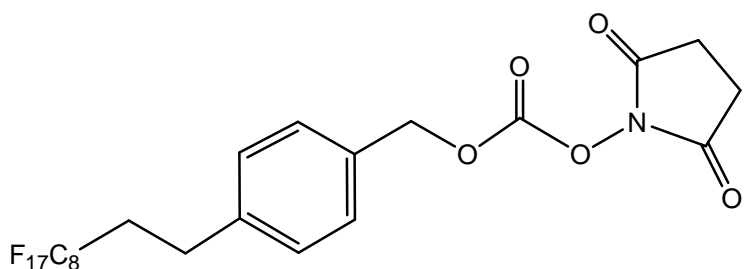


F017008



N-[4-(1H,1H,2H,2H-Perfluorodecyl)benzyloxycarbonyloxy] succinimide

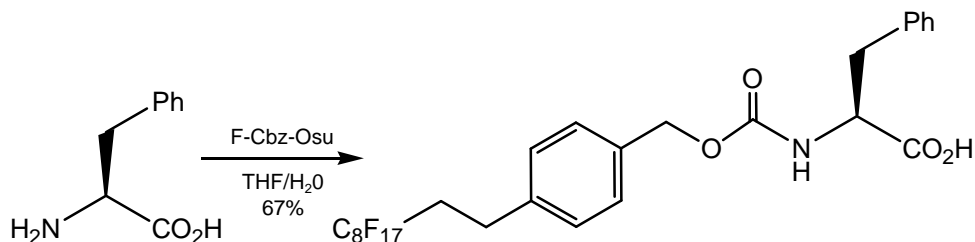
Chemical Formula:	C ₂₂ H ₁₄ F ₁₇ NO ₅
Formula Weight:	695.33
Description:	Protecting Group and Tag
CAS Number:	356056-15-0
Appearance:	Clear liquid
Density:	1.37
Soluble in:	Dichloromethane, chloroform, THF, ether, toluene, and most other typical organic solvents
Stability:	Stable in air

DESCRIPTION AND USES: ¹

- F-Cbz-OSu is the fluorous equivalent of benzyloxycarbonyl oxysuccinimide (Cbz-OSu) used in protecting amino groups in peptide synthesis or multi-step organic synthesis.
- Protection of the amino group with F-Cbz-OSu and subsequent deprotection are achieved with traditional reaction conditions, with the advantage that products containing the F-Cbz group can easily be separated from organic reagents, reactants or products by performing a quick fluorous solid phase extraction over FluoroFlash[®] silica gel ^{2,3}.

TYPICAL TAGGING PROCEDURE: ¹ Et₃N (300 μL, 2.16 mmol) was added to a solution of L-phenylalanine (356 mg, 2.16 mmol) and F-Cbz- OSu (1.0 g, 1.44 mmol) in THF/H₂O (30 mL/5 mL). The mixture was stirred for 1h at ambient temperature. The mixture was acidified to pH 2 with aqueous HCl and extracted with EtOAc. The organic layer was extracted with H₂O (3x) and dried. After concentration the crude product was purified by recrystallization or by FluoroFlash[®] SPE. ³ Typical yield = 0.722 g, 67%.

TYPICAL DETAGGING PROCEDURE: The fluorous tag can be cleaved under standard hydrogenation conditions and removed by fluorous SPE to yield pure product in the organic wash using 80:20 MeOH:H₂O.



RELATED REAGENTS:

F017008, the C₈F₁₇ analog, has appropriate fluorine content for tagging of diverse organic molecules and is recommended for natural products or medicinal chemistry synthesis in combination with fluorous solid phase extraction. The other F-Cbz-OSu homologs listed are useful in fluorous chromatography or fluorous mixture synthesis.

REFERENCES:

- 1) Curran, D. P.; Amatore, M.; Guthrie, D.; Campbell, M.; Go, E.; Luo, Z *J.Org.Chem.* **2003**, 68, 4643.
- 2) Curran, D. P. *Synlett* **2001**, 1488.
- 3) Please refer to FTI Application Note "Fluorous Solid Phase Extraction"
- 4) Dmitri V. Filippov, Dirk J. van Zoelen, Steven P. Oldfield, Gijs A. van der Marel, Herman S. Overkleeft, Jan W. Drijfhout and Jacques H. van Boom "Use of benzyloxycarbonyl (Z)-based fluorophilic tagging reagents in the purification of synthetic peptides" *Tetrahedron Lett.* **2002**, 43, 7809–7812.
- 5) Dominik Schwinn, Willi Bannwarth "Perfluoro-Tagged Benzyloxycarbonyl Protecting Group and Its Application in Fluorous Biphasic Systems" *Helv. Chim. Acta* **2002**, 85, 255-264.

Additional F-Cbz-OSu

Homologs Available:

Rf	Catalog No.
C ₃ F ₇	F007008
C ₄ F ₉	F009008
C ₆ F ₁₃	F013008
C ₁₀ F ₂₁	F021008