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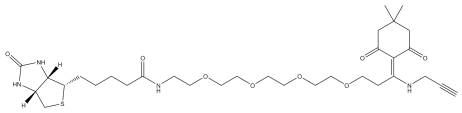
Product Information

Azide PEG reagent, 5-(Azide-PEG9-ethylcarbamoyl)pentanoic *t*-butyl ester, Purity 98%



Cat. No.: X24-09-YYX460

Size: 50 mg; 100 mg; 250 mg

Synonym: 5-Azido-PEG9-ethylcarbamoyl pentanoic acid *t*-butyl ester; *t*-butyl ester of 5-(Azide-PEG9-ethylcarbamoyl)pentanoic acid; Azide-PEG9-ethylcarbamoyl-5-pentanoic *t*-butyl ester

This product is for research use only and is not intended for diagnostic use.

Product Information

Description	5-(Azide-PEG9-ethylcarbamoyl)pentanoic *t*-butyl ester is a PEG compound that features both an azide group and a *t*-butyl ester moiety. The azide (N3) can engage in reactions with alkynes, BCN, and DBCO through click chemistry methods to form stable triazole linkages. Furthermore, the carboxylic acid protected by *t*-butyl can be deprotected under acidic conditions.
Molecular Weight	666.8
Molecular Formula	$C_{30}H_{58}N_4O_{12}$
Functional Group 1	Azide
Functional Group 2	*t*-Butyl ester
Functional Group 3	Ether
Reactive Group 1	Alkynyl
Form	Solid
Purity	98%
Identity	Confirmed by NMR.
Applications	This compound is applicable in lipid modification and the design of lipid-based drug delivery systems. The azide group provides a site for conjugation with other molecules for targeted delivery or functionalization. The PEG9 chain improves the solubility and biocompatibility of the lipid molecule. The *t*-butyl ester can be selectively deprotected to expose the carboxylic acid group for further chemical modifications. This enables the formulation of lipid nanoparticles or liposomes with enhanced drug loading and targeting efficiency.
Storage	Store at -20°C.