

6-(Biotinamido)hexyl azide

CAS # 952091-45-1

EXIM-INDIS INC
EVOLVING CHEMISTRY

Product In Focus

6-(Biotinamido)hexyl azide

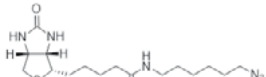
INTRODUCTION

6-(Biotinamido)hexyl azide is a click chemistry reagent (CAS 952091-45-1) used to biotinylate alkyne-tagged biomolecules, enabling detection or purification. It features a biotin moiety attached to a hexyl spacer terminating in an azide group, producing stable triazole linkages via copper-catalyzed (CuAAC) or copper-free (SPAAC) reactions

MANUFACTURE

The synthesis of 6-(Biotinamido)hexylazide generally involves the coupling of an activated biotin derivative with 6-azidohexan-1-amine.

KEY DETAILS

CAS Number	952091-45-1
Molecular Formula	C ₁₆ H ₂₈ N ₆ O ₂ S
Molecular Weight	368.51 g/mol
Purity	>95% or >96% typically
IUPAC Name	N-(6-azidohexyl)-5-((3aS,4S,6aR)-2-oxohexahydro-1H-thieno[4-d]imidazol-4-yl)pentanamide
Synonyms	N-(6-Azidohexyl)biotinamide, N-biotinyl-6-azido-1-hexylamine
Application	Ideal for labeling alkyne-functionalized molecules via copper(I)-catalyzed azide-alkyne cycloaddition (CuAAC)
Solubility	Often supplied as a white to off-white solid or powder, soluble in organic solvents like DMSO or DM
Structure	

APPLICATION:

Click chemistry labeling

Used to attach biotin to alkyne-containing molecules through azide-alkyne cycloaddition.

Protein and peptide labeling

Helps biotin-tag proteins, peptides, or biomolecules for detection or purification.

Affinity purification

The biotin tag allows capture using streptavidin or avidin beads.

Western blot / ELISA detection

Biotin-labeled targets can be detected using streptavidin-HRP or streptavidin-fluorophore systems.

Cell biology research

Used for labeling biomolecules in cells, especially where bioorthogonal click chemistry is needed.

Drug discovery and probe development

Useful for making biotinylated probes to study drug-target binding, enzyme activity, or protein interactions.

Glycan, lipid, and nucleic acid studies

Can label alkyne-modified glycans, lipids, or nucleic acids for enrichment and analysis

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SPECIFICATIONS

Test	Specification
Description	Solid
Purity	95%

STORAGE & PRECAUTION

Store at ambient conditions

PACKING

Custom packing available upon request

GMP STATUS

Manufactured under cGMP

Exim-Indis offers 6-(Biotinamido)hexyl azide on commercial scales and welcomes enquiries. No matter the quantity you need, our exceptional quality and service will make Exim-Indis your supplier of choice. If you need any additional information or SDS, please contact us.