



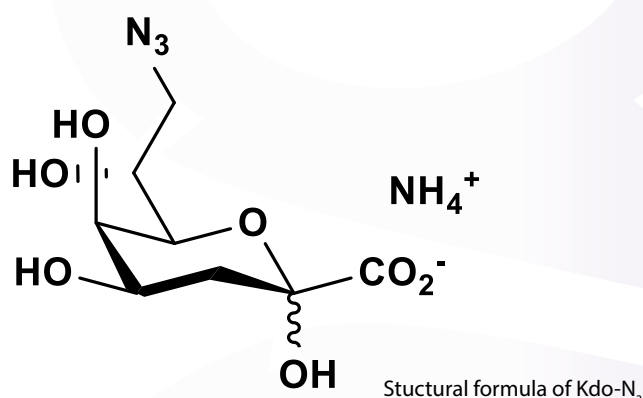
Kdo-N₃

Product Name

Ammonium 8-azido-3,8-dideoxy-D-manno-octulosonate

CAS Number

Cat. No.	Amount
kdo-n3-0.5	0.5 mg (0.15 µmol)
kdo-n3-2.5	2.5 mg (0.75 µmol)
kdo-n3-10	10 mg (3 µmol)



For research use only

Chemical Composition: C₈H₁₆N₄O₇

Molecular Weight: 280.10

Solubility: H₂O, DMSO.

Form: White lyophilized powder.

Storage Conditions: At -20°C.

Shipping: At ambient temperature.

Applications

Metabolic Glycan Labeling. Cell-surface Glycan Labeling.

Lipopolysaccharides (LPS) labeling (Gram-negative bacteria).

Azido-containing saccharides can be labeled with alkyne-containing reporter molecules via Cu(I)-catalyzed Azide-Alkyne Cycloaddition (CuAAC, terminal alkyne), or via copper-free Strain-Promoted Alkyne-Azide Cycloaddition (SPAAC, strained alkyne).

Description

Azido-containing monosaccharide for metabolic labeling of cell-surface glycan.

8-Azido-3,8-dideoxy-D-manno-octulosonic acid (Kdo-N₃) is an analogue of the natural 3-deoxy-D-manno-octulosonic acid (Kdo) that contains a very small modification, specifically an azido moiety. This molecule can be incorporated by cultured cells (Gram-negative bacteria, for example) and incorporated into glycans (LPS, for example) during active glycan biosynthesis.

Detection utilizes the chemoselective ligation or "click" reaction between an azide and an alkyne or cyclooctyne. The azido modified glycan can be labeled with either a fluorescent alkyne or a biotin alkyne.

Azide and alkyne groups do not react or interfere with other functional groups found in biological samples but conjugate to one another with high efficiency.

References

A. Dumont, A. Malleron, M. Awwad, S. Dukan, B. Vauzeilles, *Angew. Chem., Int. Ed.*, 2012, 51, 3143-3146.