

Ac4ManNDAz

Chemical Properties

CAS No. : 1015698-39-1

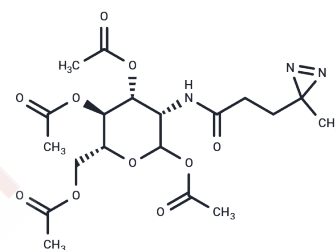
Formula: C₁₉H₂₇N₃O₁₀

Molecular Weight: 457.43

Store at low temperature, Keep away from moisture

Storage: Store at -20°C

Actual storage temperature shall be subject to the COA.



Biological Description

Description	Ac4ManNDAz is a cell-permeable photocrosslinking probe that is a precursor to photocrosslinked sialic acid, which attaches to cell surface α 2-6-conjugated sialic acid and produces photocrosslinking via sialic acid.
Targets(IC50)	Others
Cell Research	<p>Instructions</p> <ol style="list-style-type: none"> 1. Prepare a culture medium containing Ac4ManNDAz (usually add a specific concentration of Ac4ManNDAz, such as 20-100 μM, adjusted according to experimental requirements). 2. Expose cells to the culture medium containing Ac4ManNDAz and incubate for a certain period of time (usually 24-48 hours) to allow the probe to be incorporated into the glycoprotein synthesis pathway. 3. UV cross-linking: Collect cells treated with Ac4ManNDAz and wash with PBS or appropriate buffer; expose cells to UV light of a specific wavelength (usually 365 nm) for an irradiation time optimized according to the experiment (e.g. 5-15 minutes); after cross-linking is completed, stop UV irradiation immediately to avoid nonspecific damage. 4. Subsequent analysis: <ol style="list-style-type: none"> a. Lyse cells: Extract cell lysate with lysis buffer (e.g. RIPA buffer). b. Detect glycoprotein interactions: Isolate and identify glycoproteins and their ligands incorporated with Ac4ManNDAz by co-immunoprecipitation, mass spectrometry or other methods. c. Fluorescent labeling or chemical labeling (if a reporter group is attached to Ac4ManNDAz): used for observation or quantitative analysis. <p>The above information is based on published literature. Experimental procedures should be appropriately modified to meet specific research demands.</p>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.1861 mL	10.9306 mL	21.8613 mL
5 mM	0.4372 mL	2.1861 mL	4.3723 mL
10 mM	0.2186 mL	1.0931 mL	2.1861 mL
50 mM	0.0437 mL	0.2186 mL	0.4372 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Pham ND, et al. Cellular metabolism of unnatural sialic acid precursors. *Glycoconj J.* 2015 Oct;32(7):515-29.

Zhang X, et al. Applying DNA rolling circle amplification in fluorescence imaging of cell surface glycans labeled by a metabolic method. *Chem Sci.* 2016 Sep 1;7(9):6182-6189.

Flynn RA, et al. Small RNAs are modified with N-glycans and displayed on the surface of living cells. *Cell.* 2021 Jun 10;184(12):3109-3124.e22.

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