Data Sheet (Cat.No.T36370)



4-Methylumbelliferyl-α-L-Iduronide (free acid)

Chemical Properties

CAS No.: 66966-09-4 Formula: C16H16O9

Molecular Weight: 352.295

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description 4-Methylumbelliferyl- α -L-iduronide (free acid) is a fluorogenic substrate for α -L-

iduronidase, an enzyme found in cell lysosomes that is involved in the degradation of

glycosaminoglycans such as dermatan sulfate and heparin sulfate. 4-

Methylumbelliferyl- α -L-iduronide is cleaved by α -L-iduronidase to release the fluorescent moiety 4-methylumbelliferyl (4-MU). 4-MU fluorescence is pH-dependent with excitation maxima of 320 and 360 nm at low (1.97-6.72) and high (7.12-10.3) pH, respectively, and an emission maximum ranging from 445 to 455 nM, increasing as pH decreases. This substrate is used in assays that measure the activity of α -L-iduronidase, which is commonly deficient in a type of lysosomal storage disease called

mucopolysaccharidosis.

Solubility Information

Solubility Ethanol: 2 mg/mL

DMSO: 5 mg/mL DMF: 20 mg/mL PBS (pH 7.2): 2 mg/mL

(< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.8385 mL	14.1924 mL	28.3849 mL
5 mM	0.5677 mL	2.8385 mL	5.677 mL
10 mM	0.2838 mL	1.4192 mL	2.8385 mL
50 mM	0.0568 mL	0.2838 mL	0.5677 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.

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