Creative Enzymes®

4-Methylumbelliferyl-α-L-Idopyranosiduronic Acid

Cat. No. NATZ-099

Lot. No. (See product label)

Introduction

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.

Synonyms 4-Methylumbelliferyl-α-L-Idopyranosiduronic Acid 4-MU-α-IdoA MU-α-IdoA

Product Information

Form A crystalline solid

CAS No. 66966-09-4

Molecular Formula C16H16O9

Molecular Weight 352.3

Purity 90%

Storage and Shipping Information

Storage -20°C