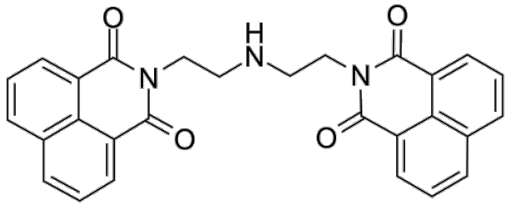
Product Data Sheet

Product Name: M-31850
Cat. No.: GC63053

Chemical Properties

Cas. No.	281224-40-6		
Formula	$C_{28}H_{21}N_3O_4$	M.Wt	463.48
Solubility	DMSO : 5 mg/mL (10.79 mM; ultrasonic and adjust pH to 6 with HCl)	Storage	Store at -20°C, protect from light
General tips	For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20°C for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure			



Background

M-31850 is a potent, selective and competitive β-hexosaminidase (Hex) inhibitor with IC50s of 6.0 μM and 3.1 μM for human HexA and human HexB, respectively. M-31850 also competitively inhibits β-N-acetyl-D-hexosaminidase OfHex2 with a Ki of 2.5 μM[1][2].

M-31850 shows some activity towards Jack Bean Hex (JBHex) and bacterial Hex from Streptomyces plicatus (SpHex) (IC50 of 280 μM and >500 μM for JBHex and SpHex, respectively)[1]. M-31850

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produces a dose dependent increase in MUG hydrolysis (Hex S levels) in lysates from treated infantile Sandhoff disease (ISD) cells[1]. M-31850 increases the half-life of the mutant Hex A from Adult forms of Tay-Sachs (ATSD) cells more than two-fold at 44° C, relative to the enzyme heated in the presence of DMSO. M-31850 acts as a classic competitive inhibitor of Hex (Km increases and Vmax is unaffected by increasing amounts of M-31850), with a Ki of 0.8 μM[1].

[1]. Michael B Tropak, et al. High-throughput screening for human lysosomal beta-N-Acetyl hexosaminidase inhibitors acting as pharmacological chaperones. Chem Biol. 2007 Feb;14(2):153-64.
[2]. Qi Chen, et al. Exploring unsymmetrical dyads as efficient inhibitors against the insect β-N-acetyl-D-hexosaminidase OfHex2. Biochimie. 2014 Feb;97:152-62.

Caution: Product has not been fully validated for medical applications. For research use only.
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