



Isofagomine Tartrate

Data Sheet

Catalog Number:	MC11049	Product Type:	Small Molecule
Bio-Activity:	Glucocerebrosidase activator/ chaperone	CAS #:	957230-65-8
Research Categories:	Neuroscience, vesicles	Chemical Name:	(3R,4R,5R)-5-Hydroxymethyl-3,5-piperidinediol tartrate
Solubility:	Soluble in DMSO (up to 2 mg/ml).	Molecular Formula:	C ₆ H ₁₃ NO ₃ C ₄ H ₆ O ₆
Purity:	> 98%	Molecular Weight:	297.26
Format:	Powder	Ship Temp:	Ambient
Storage:	-20°C		

Application Notes

Description/Data:

A competitive inhibitor of human lysosomal β -glucosidase, IC₅₀ = 0.06 μ M [1]. Increases the activity of N370S mutant acid β -glucosidase (GlcCerase) in Gaucher fibroblasts [2]. Displays a direct pharmacological chaperone effect greatly increasing the amount of newly synthesized GlcCerase that traffics out of the ER [2].

References:

- 1) Kuriyama et al. (2008), In vitro inhibition of glycogen-degrading enzymes and glycosidases by six-membered sugar mimics and their evaluation in cell culture; Bioorg. Med. Chem., 16 7330
- 2) Steet et al. (2006), The iminosugar isofagomine increases the activity of N370S mutant acid beta-glucosidase in Gaucher fibroblasts by several mechanisms; Proc. Natl. Acad. Sci. USA, 103 13813

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