

Product Data Sheet

nSMase2-IN-1

Cat. No.: HY-155111

CAS No.: 2968322-24-7

Molecular Formula: $C_{12}H_{17}N_5O$ Molecular Weight: 247.3

Target: Phospholipase

Pathway: Metabolic Enzyme/Protease

Storage: Please store the product under the recommended conditions in the Certificate of

Analysis.

BIOLOGICAL ACTIVITY

Description	nSMase2-IN-1 is an orally active Neutral sphingomyelinase 2 (nSMase2) inhibitor with an IC $_{50}$ value of 0.13 \pm 0.06 μ M. nSMase2-IN-1 is metabolically stable in liver microsomes and orally available with a favorable brain-to-plasma ratio. nSMase2-IN-1 can be used for nervous system disease research ^[1] .	
In Vitro	nSMase2-IN-1 (Compound 11j) (5μ M, 60 min) shows excellent metabolic stability in rat liver microsomes with >95% remaining after 1 h ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
In Vivo	nSMase2-IN-1 (Compound 11j) (10 mg/kg for oral gavage, detection time of 30min, 2 h) is orally available and brain-penetrant in male Wistar rats ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
	Animal Model:	Male Wistar rats (Pharmacokinetic assay) ^[1]
	Dosage:	10 mg/kg
	Administration:	Oral gavage (p.o.)
	Result:	Absorbed quickly resulting in plasma concentration of more than 2 μM and had higher brain levels than plasma at 0.5 h.

REFERENCES

 $[1]. \ Novotna\ K, et\ al.\ Neutral\ sphingomyelinase\ 2\ inhibitors\ based\ on\ the\ pyrazolo [1,5-a] pyrimidin-3-amine\ scaffold.\ Eur\ J\ Med\ Chem.\ 2023\ Nov\ 5;259:115674.$

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

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