Product Datasheet

LIH383 (orb1140559)

Catalog Number	orb1140559
Category	Proteins
Description	Atypical chemokine receptor (ACKR3) agonist; Peptides.
Form/Appearance	Freeze dried solid
Purity	> 95% by HPLC
Protein Sequence	H-Phe-Gly-Gly-Phe-Met-Arg-Arg-Lys-NH2
MW	997.23 Da
Structure	H-Phe-Gly-Gly-Phe-Met-Arg-Arg-Lys-NH2
Modifications	Amide at C terminal lysine.
Target Areas	Chemokine receptors
Solubility (25°C)	Soluble in water
Formula	$C_{45}H_{72}N_{16}O_8S$
Storage	Store desiccated, frozen and in the dark

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Background	LIH383 is a highly selective agonist of the atypical chemokine receptor, ACKR3 (formerly known as CXCR7). Functionally, ACKR3 is a scavenger receptor for a wide variety of opioid peptides, especially enkephalins and dynorphins, reducing their availability for the classical opioid receptors. LIH383 competes directly with CXCL12-AF647 for ACKR3 binding at low nanomolar concentrations and is more potent in inducing β-arrestin recruitment to ACKR3 than the full-length chemokine ligands CXCL12 and CXCL11, with EC50 values of 1.2 nM and 2.2 nM respectively, and no effect on of any other opioid or chemokine receptor at concentrations up to 3 μM. LIH383 can restrain the negative regulatory function of ACKR3 on opioid peptides and potentiate their activity in rat brain.
Note	For research use only
Expiration Date	12 months from date of receipt.

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