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DATASHEET

IRL-1620

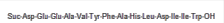
Product overview

Name	IRL-1620
Cat No	HB3411
Biological description	Overview IRL-1620 is a synthetic analog of endothelin-1. It is a highly selective ET_B receptor agonist (K_i values are 16 pM and 1.9 μM at ET_B and ET_A receptors respectively). IRL1620 is ~60 times more selective for the ET_B receptor than Endothelin-3. Uses & applications IRL-1620 causes vasodilation by inducing nitric oxide (NO) release and has been shown to increase effectiveness of paclitaxel in breast cancer animal models. It may also have neuroprotective effects.
Biological action	Peptide
Purity	>95%
Description	Highly selective ET _B agonist

Solubility & Handling

Storage instructions	-20 °C (desiccate)
Solubility overview	Soluble in water (0.5 mg/ml)
Important	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use

Chemical Data

Chemical name	DEEAVYFAHLDIW (Asp-1 = Suc-Asp)
Molecular Weight	1820.97
Chemical structure	
Molecular Formula	C ₈₆ H ₁₁₇ N ₁₇ O ₂₇
Sequence (one letter)	DEEAVYFAHLDIW
Sequence (three letter)	Asp-Glu-Glu-Ala-Val-Tyr-Phe-Ala-His-Leu-Asp-Ile-Ile-Trp
Modifications	Asp-1 = Suc-Asp
CAS Number	142569-99-1
PubChem identifier	16133819
SMILES	<chem>CC[C@H](C)[C@@H](C)(=O)N[C@@H]([C@@H](C)CC)C(=O)N[C@@H](CC1=CNC2=CC=CC=C21)C(=O)O)NC(=O)[C@H](CC(=O)O)NC(=O)[C@H](CC(C)C)NC(=O)[C@H](CC3=CNC=N3)NC(=O)[C@H](C)NC(=O)[C@H](CC4=CC=CC=C4)NC(=O)[C@H](CC5=CC=C(C=C5)O)NC(=O)[C@H](C(C)C)NC(=O)[C@H](C)NC(=O)[C@H](CCC(=O)O)NC(=O)[C@H](CCC(=O)O)NC(=O)[C@H](CC(=O)O)NC(=O)CCC(=O)O</chem>
InChiKey	DXPHNGAMYPPTBJ-TZMIJSMNSA-N
Protein length	14

References

A potent and specific agonist, Suc-[Glu9,Ala11,15]-endothelin-1(8-21), IRL 1620, for the ETB receptor

Takai M *et al* (1992) Biochem Biophys Res Commun 184(2)

PubMedID [1315540](#)

Endothelin B receptor agonist, IRL 1620, enhances the anti-tumor efficacy of paclitaxel in breast tumor rats

Rajeshkumar NV *et al* (2005) Breast Cancer Res Treat 94(3)

PubMedID [16244791](#)

Stimulation of endothelin B receptors by IRL-1620 decreases the progression of Alzheimer's disease

Briyal S *et al* (2015) Neuroscience 301

PubMedID [26022359](#)

Neuroprotective Effect of IRL-1620, an Endothelin B Receptor Agonist, on a Pediatric Rat Model of Middle Cerebral Artery Occlusion

Cifuentes EG *et al* (2018) Front Pediatr 6

PubMedID [30406063](#)
