Veldoreotide

Cat. No.:	HY-P0024
CAS No.:	252845-37-7
Molecular Formula:	$C_{60}H_{74}N_{12}O_{10}$
Molecular Weight:	1123.3
Target:	Somatostatin Receptor
Pathway:	GPCR/G Protein; Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.

BIOLOGICAL ACTIVITY

Description	Veldoreotide (DG3173) a somatostatin analogue, binds to and activate the somatostatin receptors (SSTR) 2, 4, and 5. Veldoreotide inhibits growth hormone (GH) secretion in adenomas compared with Octreotide (HY-P0036). Veldoreotide has the potential to be used as pain modulating agent[1]

IC_{50} & Target	SSTR2	SSTR3	SSTR4
	37.6 nM (EC50)	31.3 nM (EC50)	10.5 nM (EC50)

In Vitro

Veldoreotide stimulates the SST2, SST4, and SST5 receptors with high potency and efficacy in the HEK293 cells, co-expressing these receptors with the GIRK2 channels; EC_{50}s of 37.6 ± 4.5 nM, 31.3 ± 14.4 nM and 10.5 ± 3.4 nM for GIRK2-SST2, GIRK2-SST4 and GIRK2-SST5, respectively[1].

Veldoreotide (10 μM; 24 h) inhibits SST4-expressing BON-1 cells[1].

Veldoreotide (DG3173) (100 nM or 1 μM; 6 h) inhibits GH secreation in adenomas with an IC_{50} of 0.49 nM[2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Proliferation Assay[1]

Cell Line:	SST4-expressing BON-1 cells
Concentration:	10 μM
Incubation Time:	24 h
Result:	Inhibited SST4-expressing BON-1 cells, while did not significantly inhibited wild type BON-1 cells.

REFERENCES

[1]. Dasgupta P, et al. Pharmacological Characterization of Veldoreotide as a Somatostatin Receptor 4 Agonist. Life (Basel). 2021 Oct 12;11(10):1075.

[2]. Plöckinger U, et al. DG3173 (somatoprim), a unique somatostatin receptor subtypes 2-, 4- and 5-selective analogue, effectively reduces GH secretion in human GH-secreting pituitary adenomas even in Octreotide non-responsive tumours. Eur J Endocrinol. 2012 Feb;166(2):223-34.

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

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