

Product Data Sheet

Pasireotide ditrifluoroacetate

Cat. No.: HY-79135

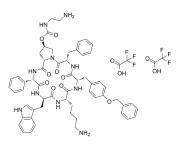
Molecular Formula: $C_{62}H_{68}F_6N_{10}O_{13}$ Molecular Weight: 1275.25

Target: Somatostatin Receptor

Pathway: GPCR/G Protein; Neuronal Signaling

Storage: -20°C, sealed storage, away from moisture

* In solvent: -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

 $\label{eq:def-DMSO:100 mg/mL} DMSO:100 \,mg/mL \,(78.42 \,mM; \,Need \,ultrasonic) \\ H_2O:33.33 \,mg/mL \,(26.14 \,mM; \,Need \,ultrasonic)$

	Solvent Mass Concentration	1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	0.7842 mL	3.9208 mL	7.8416 mL
otock ootations	5 mM	0.1568 mL	0.7842 mL	1.5683 mL
	10 mM	0.0784 mL	0.3921 mL	0.7842 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

- 1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (1.96 mM); Clear solution
- 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (1.96 mM); Clear solution
- 3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (1.96 mM); Clear solution

BIOLOGICAL ACTIVITY

Description	Pasireotide (SOM230) ditrifluoroacetate, a long-acting cyclohexapeptide somatostatin analogue, can improve agonist activity at somatostatin receptors (subtypes sst1/2/3/4/5, pK $_i$ =8.2/9.0/9.1/<7.0/9.9, respectively). Pasireotide ditrifluoroacetate exhibits antisecretory, antiproliferative, and proapoptotic activity ^{[1][2]} .
IC ₅₀ & Target	pKi: 8.2 (sst1), 9.0 (sst2), 9.1 (sst3), <7.0 (sst4), 9.9 (sst5) ^[1]
In Vitro	Pasireotide ditrifluoroacetate exhibits unique high-affinity binding to human somatostatin receptors (subtypes sst1/2/3/4/5, pK $_{\rm i}$ =8.2/9.0/9.1/<7.0/9.9, respectively) $^{[1]}$.

Pasireotide ditrifluoroacetate effectively inhibits the growth hormone releasing hormone (GHRH) induced growth hormone (GH) release in primary cultures of rat pituitary cells, with an IC_{50} of 0.4 $nM^{[1]}$.

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

In Vivo

Pasireotide ditrifluoroacetate (160 mg/kg/mouth; s.c. for 4 months) significantly decreases the serum insulin, increases serum glucose, reduces the tumor size and increases apoptosis in Pdx1-Cre^[2].

Pasireotide ditrifluoroacetate (2-50 $\mu g/kg$; s.c. twice daily for 42 days) exerts the antinociceptive and antiinflammatory actions via the SSTR2 receptor in a mouse model of immune-mediated arthritis^[3].

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

Animal Model:	12 month-old conditional Men1 knockout mice with insulinoma ^[2]	
Dosage:	160 mg/kg/mouth	
Administration:	S.c. every month for 4 months	
Result:	Decreased the serum insulin from 1.060 μ g/L to 0.3653 μ g/L and increased the serum glucose from 4.246 mM to 7.122 mM. Significantly reduced the tumor size and increased apoptosis.	

CUSTOMER VALIDATION

- Hepatology. 2017 Oct;66(4):1197-1218.
- Am J Pathol. 2018 Apr;188(4):981-994.
- Basic Clin Pharmacol Toxicol. 2022 Jun 10.
- Communications Medicine. 2, 80 (2022).

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REFERENCES

[1]. Lewis I, et, al. A novel somatostatin mimic with broad somatotropin release inhibitory factor receptor binding and superior therapeutic potential. J Med Chem. 2003 Jun 5;46(12):2334-44.

[2]. Quinn TJ, et, al. Pasireotide (SOM230) is effective for the treatment of pancreatic neuroendocrine tumors (PNETs) in a multiple endocrine neoplasia type 1 (MEN1) conditional knockout mouse model. Surgery. 2012 Dec;152(6):1068-77.

[3]. Imhof AK, et, al. Differential antiinflammatory and antinociceptive effects of the somatostatin analogs octreotide and pasireotide in a mouse model of immune-mediated arthritis. Arthritis Rheum. 2011 Aug;63(8):2352-62.

 $\label{lem:caution:Product} \textbf{Caution: Product has not been fully validated for medical applications. For research use only.}$

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