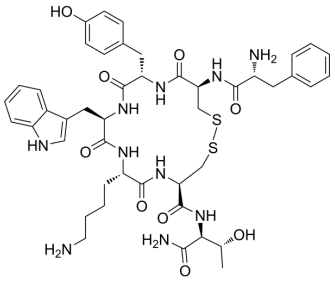
TT-232

Cat. No.:	HY-105172
CAS No.:	147159-51-1
Molecular Formula:	$C_{45}H_{58}N_{10}O_9S_2$
Molecular Weight:	947.13
Target:	Somatostatin Receptor
Pathway:	GPCR/G Protein; Neuronal Signaling
Storage:	Sealed storage, away from moisture and light, under nitrogen Powder -80°C 2 years -20°C 1 year * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light, under nitrogen)



SOLVENT & SOLUBILITY

In Vitro	H_2O : < 0.1 mg/mL (ultrasonic) (insoluble)

BIOLOGICAL ACTIVITY

Description	TT-232 (CAP-232), a somatostatin derivative, is a peptide SSTR1/SSTR4 agonist. TT-232 inhibits cancer cell proliferation and induces apoptosis. TT-232 is also a broad-spectrum anti-inflammatory and analgesic agent[1][2][4].
IC_{50} & Target	SSTR1 SSTR4
In Vitro	TT-232 (10 μg/mL, 48 h) induces apoptosis in human colon (HT-29 and SW620), pancreatic (818), leukemia (K-562), melanoma (WM 938/B, M-1 and EP) and lymphoma (HT-58) tumor cell lines[1]. TT-232 (20-30 μg/mL, 24 h) shows antiproliferative effect on various human tumor cell lines[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Viability Assay[2]

Cell Line:	MCF7, PC-3, P818, K-562, 4-1ST, ect.
Concentration:	20-30 μg/mL
Incubation Time:	24 h
Result:	Inhibited cell proliferation by 87%, 90%, 98%, 95%, respectively.

In Vivo	TT-232 (15-750 μg/kg/day, twice a day) inhibits tumor growth in mice transplanted with Colon 26 cell[2]. TT-232 (0.6 or 15 μg/kg s.c or i.p.) shows antitumor effect on P-388 rodent lymphocytic leukemia tumor mice[3]. TT-232 (7.5-20 μg/kg, i.v.) inhibits Carrageenin-induced paw oedema in rats[4]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Mice transplanted with Colon 26 cell [2].
Dosage:	15, 150, 750 μg/kg/day
Administration:	Intraperitoneal injection (i.p.)
Result:	Reached 70% tumor inhibition at 750 μg/kg.

REFERENCES

[1]. Szende B, et al. TT-232: a somatostatin structural derivative as a potent antitumor drug candidate. Anticancer Drugs. 2003 Sep;14(8):585-8.

[2]. Kéri G, et al. A tumor-selective somatostatin analog (TT-232) with strong in vitro and in vivo antitumor activity. Proc Natl Acad Sci U S A. 1996 Oct 29;93(22):12513-8.

[3]. Tejeda M, et al. Growth inhibitory effect of the somatostatin structural derivative (TT-232) on leukemia models. Anticancer Res. 2005 Jan-Feb;25(1A):325-30.

[4]. Pintér E, et al. Pharmacological characterisation of the somatostatin analogue TT-232: effects on neurogenic and non-neurogenic inflammation and neuropathic hyperalgesia. Naunyn Schmiedebergs Arch Pharmacol. 2002 Aug;366(2):142-50.

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