AP102

Cat. No.:	HY-P2434
CAS No.:	846569-60-6
Molecular Formula:	$C_{50}H_{66}I_2N_{12}O_{10}S_2$
Molecular Weight:	1313.07
Sequence:	{4-amino-3-iodo-d-Phe}-Cys-(3-iodo-Tyr}-{d-Trp}-Lys-Val-Cys-Thr-NH2 (Disulfide bridge: Cys2-Cys7)
Sequence Shortening:	{4-amino-3-iodo-d-Phe}-C-(3-iodo-Tyr}-{d-Trp}-KVCT-NH2 (Disulfide bridge: Cys2-Cys7)
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	AP102 is a dual SSTR2/SSTR5-specific somatostatin analog (SSA). AP102 is a disulfide-bridged octapeptide SSA containing synthetic iodinated amino acids. AP102 binds with subnanomolar affinity to SSTR2 and SSTR5 (IC_{50}: 0.63 and 0.65 nM, respectively). AP102 does not bind to SSTR1 or SSTR3. AP102 can be used for acromegaly and neuroendocrine tumors research[1].	
IC_{50} & Target	SSTR2 0.63 nM (IC_{50})	SSTR5 0.65 nM (IC_{50})
In Vitro	AP102 inhibits GHRH-stimulated GH release and prolactin release from rat anterior pituitary cells in vitro. The IC_{50} levels for GH and prolactin inhibition were low (0.15 and 0.23 nM, respectively) and were similar to those obtained with somatostatin 14 (0.1 and 0.2 nM, respectively)[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
In Vivo	AP102 (0-30 μg/kg, sc) acutely reduces growth hormone but does not cause hyperglycemia during acute or chronic administration in a healthy rat model[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.	

REFERENCES

[1]. Tarasco E, et al. Effect of AP102, a subtype 2 and 5 specific somatostatin analog, on glucose metabolism in rats. Endocrine. 2017 Oct;58(1):124-133.

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