CH 275

Cat. No.:	HY-P1206
CAS No.:	174688-78-9
Molecular Formula:	$C_{74}H_{96}N_{14}O_{15}S_2$
Molecular Weight:	1485.77
Sequence Shortening:	CKFF-{D-Trp}-FTFTSC (Disulfide bridge:Cys1-Cys11)
Target:	Somatostatin Receptor
Pathway:	GPCR/G Protein; Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the COA.

BIOLOGICAL ACTIVITY

Description	CH 275 is a potent and selective **somatostatin receptor 1 (sst_1)** agonist and display **IC_{50}** values of 30.9 nM, 345 nM, >1 μM, >10 μM for human human sst_1, sst_3, sst_4, sst_2 and sst_5 respectively[1]. CH 275 can be used for the research of Alzheimer's disease[2].
In Vitro	CH275 (100 nM) activates neprilysin activity, wheras treatment with cyclo-SRIF can complete this activation in vitro in primary neuron-based cell culture system, a mixture of wildtype hippocampal, cortical and striatal neuron[1].
In Vivo	CH275 (osmotic pump administration; 56 μM; two weeks) decreases the level of neprilysin/SRIF in the App knock-in mice[1]. CH275 directly injects into the Lmol layer of 2-month-old AppNL-G-Fmice for four months. App_{NL-G-F} mice begin to exhibit Aβ plaques at two months of age, but CH275 leads to robustly increased the expression of neprilysin in hippocampus which is paralleled by a clear reduction in Aβ plaque load in the same region, and without causing any toxic side effects[1].

REFERENCES

[1]. J E Rivier, et al. Potent somatostatin undecapeptide agonists selective for somatostatin receptor 1 (sst1). J Med Chem. 2001 Jun 21;44(13):2238-46.

[2]. J E Rivier, et al. Potent somatostatin undecapeptide agonists selective for somatostatin receptor 1 (sst1). J Med Chem. 2001 Jun 21;44(13):2238-46.

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