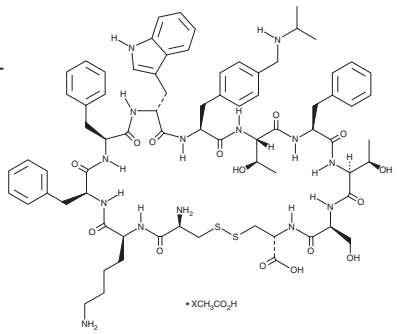
PRODUCT INFORMATION

CH 275 (acetate)

Item No. 41050

Formal Name:	L-cysteinyl-L-lysyl-L-phenylalanyl-L-phenylalanyl-D-tryptophyl-4-[[(1-methylethyl)amino]methyl]-L-phenylalanyl-L-threonyl-L-phenylalanyl-L-threonyl-L-seryl-L-cysteine, cyclic (1→11)-disulfide, acetate
Peptide Sequence:	CLFFwXTFTSC-OH (X= 4-(N-isopropyl)-aminomethylphenylalanine)
MF:	$C_{74}H_{96}N_{14}O_{15}S_2 \bullet XC_2H_4O_2$
FW:	1,485.8
Purity:	≥95%
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

CH 275 (acetate) is supplied as a solid. A stock solution may be made by dissolving the CH 275 (acetate) in the solvent of choice, which should be purged with an inert gas. CH 275 (acetate) is slightly soluble (0.1-1 mg/ml) in acetonitrile and sparingly soluble (1-10 mg/ml) in DMSO.

CH 275 (acetate) is slightly soluble (0.1-1 mg/ml) in aqueous solutions. To enhance aqueous solubility, dilute the organic solvent solution into aqueous buffers or isotonic saline. If performing biological experiments, ensure the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

Description

CH 275 is a cyclic peptide agonist of somatostatin receptor 1 (SST_1; IC_{50} = 30.9 nM for the human receptor).[1] It is selective for SST_1 over SST_2, SST_3, SST_4, and SST_5 (IC_{50}s = >10,000, 345, >1,000, and >10,000 nM, respectively, for the human receptors). CH 275 (500 nM) inhibits basal growth hormone secretion from primary mouse pituitary cells.[2] It inhibits glucose-induced increases in electrical activity without inducing membrane hyperpolarization in a whole-cell patch-clamp assay using MIN6 pancreatic β-cells when used at a concentration of 100 nM.[3]

References

1. Rivier, J.E., Hoeger, C., Erchegyi, J., *et al*. Potent somatostatin undecapeptide agonists selective for somatostatin receptor 1 (sst1). *J. Med. Chem*. **44(13)**, 2238-2246 (2001).
2. Kreienkamp, H.J., Akgün, E., Baumeister, H., *et al*. Somatostatin receptor subtype 1 modulates basal inhibition of growth hormone release in somatotrophs. *FEBS Lett*. **462(3)**, 464-466 (1999).
3. Smith, P.A., Sellers, L.A., and Humphrey, P.P. Somatostatin activates two types of inwardly rectifying K^+ channels in MIN-6 cells. *J. Physiol*. **532(Pt 1)**, 127-142 (2001).

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