Product Data Sheet

Somatostatin-28 (sheep, human rat mouse)

Cat. No.:	HY-P3954	
CAS No.:	73032-94-7	
Molecular Formula:	C ₁₃₇ H ₂₀₇ N ₄₁ O ₃₉ S ₃	
Molecular Weight:	3148.56	
Sequence:	Ser-Ala-Asn-Ser-Asn-Pro-Ala-Met-Ala-Pro-Arg-Glu-Arg-Lys-Ala-Gly-Cys-Lys-Asn-Phe-P he-Trp-Lys-Thr-Phe-Thr-Ser-Cys (Disulfide bridge:Cys17-Cys28)	
Sequence Shortening:	SANSNPAMAPRERKAGCKNFFWKTFTSC (Disulfide bridge: Cys17-Cys28)	
Target:	Somatostatin Receptor	
Pathway:	GPCR/G Protein; Neuronal Signaling	
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.	

BIOLOGICAL ACTIV			
Description	Somatostatin-28 (sheep, human rat mouse) is a biologically active polypeptide, synthesised in the proximal intestinal epithelial cells. Somatostatin-28 (sheep, human rat mouse) suppresses glucose-stimulated insulin secretion without affecting circulating basal insulin concentration. Somatostatin-28 (sheep, human rat mouse) also targets to somatostatin receptor subtype 5 (SSTR5) to regulate GLP-1 secretion ^{[1][2]} .		
IC ₅₀ & Target	SSTR5		
In Vitro	Somatostatin-28 dose-dependently inhibits GLP-1 secretion stimulated by gastrin-releasing peptide with an EC ₅₀ value of 0.01 nM ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.		
In Vivo	Somatostatin-28 (sheep) (1.1 pmol/kg/min; i.v. via a jugular catheter; 15 min) inhibits insulin secretion induced by 25 μ g/kg/min glucose in sheep ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.		
	Animal Model:	Finn-Dorset Horn cross bred sheep (2-5 years old, 70-75 kg) ^[2]	
	Dosage:	1.1 pmol/kg/min for 15 min, with or without 25 $\mu g/kg/min$ glucose;	
	Administration:	Intravenous injection via a jugular catheter;	
	Result:	Significantly inhibited insulin secretion, resulted serum concentrations decreasing from about 200 to 150 pmol/L.	

REFERENCES

[1]. Martin PA, et al. Effects of somatostatin-28 on circulating concentrations of insulin and gut hormones in sheep. J Endocrinol. 1996 Oct;151(1):107-12.

[2]. Chisholm C, et al. Somatostatin-28 regulates GLP-1 secretion via somatostatin receptor subtype 5 in rat intestinal cultures. Am J Physiol Endocrinol Metab. 2002 Aug;283(2):E311-7.

Caution: Product has not been fully validated for medical applications. For research use only.

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