Amylin (8-37), rat

Cat. No.: HY-P1473

CAS No.: 138398-61-5

Molecular Formula: $C_{140}H_{227}N_{43}O_{43}$

Molecular Weight: 3200.61

Sequence: Ala-Thr-Gln-Arg-Leu-Ala-Asn-Phe-Leu-Val-Arg-Ser-Ser-Asn-Asn-Leu-Gly-Pro-Val-Leu-Pro-Pro-Thr-Asn-Val-Gly-Ser-Asn-Thr-Tyr-NH2

ATQRLANFLVRSSNNLGPVLPPTNVGSNTY-NH_2

Sequence Shortening: ATQRLANFLVRSSNNLGPVLPPTNVGSNTY-NH2

Target: Amylin Receptor

Pathway: GPCR/G Protein

Storage: Sealed storage, away from moisture

Powder -80°C 2 years

-20°C 1 year

* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)

SOLVENT & SOLUBILITY

In Vitro

H_2O : 50 mg/mL (15.62 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	0.3124 mL	1.5622 mL	3.1244 mL
	5 mM	0.0625 mL	0.3124 mL	0.6249 mL
	10 mM	0.0312 mL	0.1562 mL	0.3124 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

Amylin (8-37), rat is a truncated analog of native Amylin that selectively inhibits insulin-related glucose uptake and glycogen deposition in muscle tissue. Amylin (8-37), rat is a weak amylin receptor (AMY) antagonist.

IC_{50} & Target

Amylin receptor (AMY)[1]

In Vitro

Amylin (8-37), rat (Rat amylin-(8-37)) enhances insulin action and alters lipid metabolism in normal and insulin-resistant rats. Amylin (8-37) reduces plasma insulin ($P<0.001$) and enhances several measures of whole body and muscle insulin sensitivity ($P<0.05$) in both saline- and hGH-infused rats. Amylin-(8-37) corrects hGH-induced liver insulin resistance, increases basal plasma triglycerides and lowers plasma nonesterified fatty acids in both groups, and reduces muscle triglyceride and total long-chain acyl-CoA content in saline-treated rats ($P<0.05$). In isolated soleus muscle, Amylin (8-37) blocks amylin-induced inhibition of glycogen synthesis but has no effect in the absence of amylin. Thus 1) hyperamylinemia accompanies insulin resistance induced by hGH infusion; 2) Amylin (8-37) increases whole body and muscle insulin

sensitivity and consistently reduces basal insulin levels in normal and hGH-induced insulin resistant rats; and 3) Amylin (8-37) elicits a significant alteration of in vivo lipid metabolism[2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Bower RL, et al. Amylin structure-function relationships and receptor pharmacology: implications for amylin mimetic drug development. Br J Pharmacol. 2016 Jun;173(12):1883-98.

[2]. Hettiarachchi M, et al. Rat amylin-(8-37) enhances insulin action and alters lipid metabolism in normal and insulin-resistant rats. Am J Physiol. 1997 Nov;273(5 Pt 1):E859-67.

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