

[D-Trp34]-Neuropeptide Y

Cat. No.:	HY-P1322
CAS No.:	153549-84-9
Molecular Formula:	C ₁₉₆ H ₂₈₉ N ₅₅ O ₅₆
Molecular Weight:	4311.72
Sequence Shortening:	YPSKPDNPGEDAPAEDLARYYSALRHYINLITR-{D-Trp}-RY-NH2
Target:	Neuropeptide Y Receptor
Pathway:	GPCR/G Protein; Neuronal Signaling
Storage:	Sealed storage, away from moisture and light, under nitrogen
	Powder -80°C 2 years
	-20°C 1 year
	* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light, under nitrogen)

BIOLOGICAL ACTIVITY

Description	[D-Trp34]-Neuropeptide Y is a potent and selective neuropeptide Y (NPY) Y ₅ receptor agonist. [D-Trp34]-Neuropeptide Y is a significantly less potent agonist at the NPY Y ₁ , Y ₂ , Y ₄ , and Y ₆ receptors. [D-Trp34]-Neuropeptide Y markedly increases food intake in rats ^{[1][2]} .
IC₅₀ & Target	NPY Y ₅ receptor
In Vitro	[D-Trp34]-Neuropeptide Y has pK _i values of 6.49, 5.43, 7.08, 7.53, 6.55, 5.95, 6.85, 7.41 for hY ₁ , hY ₂ , hY ₄ , hY ₅ , rY ₁ , rY ₂ , rY ₄ , rY ₅ in CHO cells. [D-Trp34]-Neuropeptide Y has pEC ₅₀ values of 6.44, <6, 6.28, 7.82 for rY ₁ , rY ₂ in CHO cells and rY ₄ , rY ₅ in HEK-293 cells ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	[D-Trp34]-Neuropeptide Y (0, 8 and 16 µg/rat; i.c.v) stimulates food intake to the same extent in both lean and obese rats 1 h after injection at a dose of 16 µg in male Zucker rats ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. E M Parker, et al. [D-Trp(34)] neuropeptide Y is a potent and selective neuropeptide Y Y(5) receptor agonist with dramatic effects on food intake. Peptides. 2000 Mar;21(3):393-9.
- [2]. Bernard Beck, et al. Responsiveness of obese Zucker rats to [D-Trp34]-NPY supports the targeting of Y₅ receptor for obesity treatment. Nutr Neurosci. Oct-Dec 2007;10(5-6):211-4.

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

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