

## [D-Trp34]-Neuropeptide Y

Cat. No.:	HY-P1322
CAS No.:	153549-84-9
Molecular Formula:	C <sub>110</sub> H <sub>170</sub> N <sub>34</sub> O <sub>24</sub>
Molecular Weight:	2352.74
Sequence Shortening:	YPSKPDNPGEDAPAEDLARYYSALRHYINLITR-{D-Trp}-RY-NH <sub>2</sub>
Target:	Neuropeptide Y Receptor
Pathway:	GPCR/G Protein; Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.

### BIOLOGICAL ACTIVITY

<b>Description</b>	[D-Trp34]-Neuropeptide Y is a potent and selective neuropeptide Y (NPY) Y <sub>5</sub> receptor agonist. [D-Trp34]-Neuropeptide Y is a significantly less potent agonist at the NPY Y <sub>1</sub> , Y <sub>2</sub> , Y <sub>4</sub> , and Y <sub>6</sub> receptors. [D-Trp34]-Neuropeptide Y markedly increases food intake in rats <sup>[1][2]</sup> .
<b>IC<sub>50</sub> &amp; Target</b>	NPY Y <sub>5</sub> receptor
<b>In Vitro</b>	[D-Trp34]-Neuropeptide Y has pK <sub>i</sub> values of 6.49, 5.43, 7.08, 7.53, 6.55, 5.95, 6.85, 7.41 for hY <sub>1</sub> , hY <sub>2</sub> , hY <sub>4</sub> , hY <sub>5</sub> , rY <sub>1</sub> , rY <sub>2</sub> , rY <sub>4</sub> , rY <sub>5</sub> in CHO cells. [D-Trp34]-Neuropeptide Y has pEC <sub>50</sub> values of 6.44, <6, 6.28, 7.82 for rY <sub>1</sub> , rY <sub>2</sub> in CHO cells and rY <sub>4</sub> , rY <sub>5</sub> in HEK-293 cells <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
<b>In Vivo</b>	[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 <sup>[2]</sup> . 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 Y<sub>5</sub> 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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