

## PACAP (1-38) free acid

<b>Cat. No.:</b>	HY-P0221C
<b>CAS No.:</b>	129405-61-4
<b>Molecular Formula:</b>	C <sub>203</sub> H <sub>330</sub> N <sub>62</sub> O <sub>54</sub> S
<b>Molecular Weight:</b>	4535.24
<b>Sequence:</b>	His-Ser-Asp-Gly-Ile-Phe-Thr-Asp-Ser-Tyr-Ser-Arg-Tyr-Arg-Lys-Gln-Met-Ala-Val-Lys-Lys-Tyr-Leu-Ala-Ala-Val-Leu-Gly-Lys-Arg-Tyr-Lys-Gln-Arg-Val-Lys-Asn-Lys
<b>Sequence Shortening:</b>	HSDGIFTDSYSRYRKQMAVKKYLA AVLGLKRYKQRVKNK
<b>Target:</b>	PACAP Receptor
<b>Pathway:</b>	GPCR/G Protein
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.

### BIOLOGICAL ACTIVITY

<b>Description</b>	PACAP (1-38) free acid is an endogenous neuropeptide. PACAP (1-38) free acid potently stimulates antral motility and somatostatin secretion, inhibits the secretion of gastrin and stimulates the release of vasoactive intestinal polypeptide, gastrin releasing peptide and substance P. PACAP (1-38) free acid also enhances N-methyl-D-aspartate receptor function and expression of brain-derived neurotrophic factor through RACK1 <sup>[1][2]</sup> .								
<b>In Vitro</b>	<p>PACAP (1-38) free acid (1 nM) increases substance P, gastrin releasing peptide and vasoactive intestinal polypeptide release<sup>[1]</sup>.</p> <p>PACAP (1-38) free acid (100 nM; 10 min) induces tyrosine phosphorylation of NR2B in rat hippocampal slices<sup>[2]</sup>.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Western Blot Analysis<sup>[2]</sup></p> <table border="1"> <tr> <td>Cell Line:</td> <td>Rat hippocampal slices</td> </tr> <tr> <td>Concentration:</td> <td>100 nM</td> </tr> <tr> <td>Incubation Time:</td> <td>10 min</td> </tr> <tr> <td>Result:</td> <td>Caused an enhancement of tyrosine phosphorylation of NR2B.</td> </tr> </table>	Cell Line:	Rat hippocampal slices	Concentration:	100 nM	Incubation Time:	10 min	Result:	Caused an enhancement of tyrosine phosphorylation of NR2B.
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### REFERENCES

[1]. Tornøe K, et al. PACAP 1-38 as neurotransmitter in the porcine antrum. Regul Pept. 2001 Sep 15;101(1-3):109-21.

[2]. Yaka R, et al. Pituitary adenylate cyclase-activating polypeptide (PACAP(1-38)) enhances N-methyl-D-aspartate receptor function and brain-derived neurotrophic factor expression via RACK1. J Biol Chem. 2003 Mar 14;278(11):9630-8.

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

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