Hemopressin (human, mouse)

Cat. No.: HY-P1091

CAS No.: 1314035-51-2

Molecular Formula: $C_{50}H_{79}N_{13}O_{12}$

Molecular Weight: 1054.24

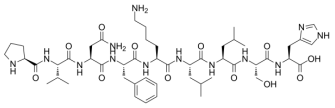
Sequence: Pro-Val-Asn-Phe-Lys-Leu-Leu-Ser-His

Sequence Shortening: PVNFKLLSH

Target: Cannabinoid 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)



SOLVENT & SOLUBILITY

In Vitro

H_2O : ≥ 16.67 mg/mL (15.81 mM)
* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	0.9486 mL	4.7428 mL	9.4855 mL
	5 mM	0.1897 mL	0.9486 mL	1.8971 mL
	10 mM	0.0949 mL	0.4743 mL	0.9486 mL

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

BIOLOGICAL ACTIVITY

Description

Hemopressin is a nonapeptide derived from the α1-chain of hemoglobin, is originally isolated from rat brain homogenates. Hemopressin is orally active, selective and inverse agonist of CB1 cannabinoid receptors. Hemopressin exerts antinociceptive action in inflammatory pain models[1][2].

In Vivo

Hemopressin causes hypotension in anesthetized rats and is metabolized in vivo and in vitro by endopeptidase 24.15 (EP24.15), neurolysin (EP24.16), and angiotensin-converting enzyme (ACE)[1].
Oral administration of Hemopressin inhibits mechanical hyperalgesia of CCI-rats up to 6h. Hemopressin treatment also decreases Egr-1 immunoreactivity (Egr-1Ir) in the superficial layer of the dorsal horn of the spinal cord of CCI rats[2].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Garron T Dodd, et al. The peptide hemopressin acts through CB1 cannabinoid receptors to reduce food intake in rats and mice. J Neurosci. 2010 May 26;30(21):7369-76.

[2]. Elaine F Toniolo, et al. Hemopressin, an inverse agonist of cannabinoid receptors, inhibits neuropathic pain in rats. Peptides. 2014 Jun;56:125-31.

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

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