

$\beta$ -Endorphin (rat)

## Chemical Properties

CAS No. : 309246-19-3

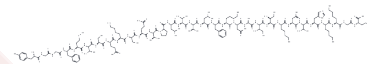
Formula: C157H254N42O44S

Molecular Weight: 3466.07

Keep away from moisture

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



## Biological Description

Description	$\beta$ -Endorphin ( $\beta$ -EP) is an endogenous opioid neuropeptide with diverse biological activities. It is produced via pro-melanocortin cleavage in the pituitary gland, hypothalamus, and in lymphocytes, then migrates to its sites of action which include plasma, gut, skin, placenta, cerebrospinal fluid, and cardiac tissues. $\beta$ -EP induces concentration-dependent decreases in electrically stimulated contraction of the mouse vas deferens that can be reversed by the $\mu$ -opioid antagonist CTP and $\delta$ -opioid antagonist ICI 174,864.
Targets(IC50)	Opioid Receptor
In vivo	In vivo, $\beta$ -EP (5 $\mu$ g, i.c.v.) slows gastrointestinal transit in mice. $\beta$ -EP (0.5 or 5 $\mu$ g, i.c.v.) stimulates food intake in rats for 4 to 6 hours, however, this effect is not prolonged with continuous infusion. It antagonizes the appetite-suppressive effects of $\alpha$ -melanocyte-stimulating hormone ( $\alpha$ -MSH) for the first three days post administration. $\beta$ -EP also reduces paralytic demyelination induced by the murine coronavirus MHV-JHM in immunocompetent, but not irradiated or immune-incompetent, mice and rats.

## Solubility Information

Solubility	H2O: 1 mg/mL (0.29 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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### Preparing Stock Solutions

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	<b>1mg</b>	<b>5mg</b>	<b>10mg</b>
1 mM	0.2885 mL	1.4426 mL	2.8851 mL
5 mM	0.0577 mL	0.2885 mL	0.577 mL
10 mM	0.0289 mL	0.1443 mL	0.2885 mL
50 mM	0.0058 mL	0.0289 mL	0.0577 mL

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Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

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