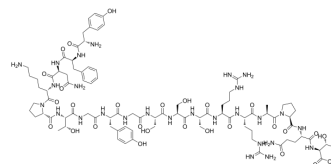


IGF-I (24-41)

| | |
|-----------------------------|---|
| Cat. No.: | HY-P1777 |
| CAS No.: | 135861-49-3 |
| Molecular Formula: | C ₈₈ H ₁₃₃ N ₂₇ O ₂₈ |
| Molecular Weight: | 2017.16 |
| Sequence: | Tyr-Phe-Asn-Lys-Pro-Thr-Gly-Tyr-Gly-Ser-Ser-Ser-Arg-Arg-Ala-Pro-Gln-Thr |
| Sequence Shortening: | YFNKPTGYGSSRRAPQT |
| Target: | IGF-1R |
| Pathway: | Protein Tyrosine Kinase/RTK |
| Storage: | Sealed storage, away from moisture |
| | Powder -80°C 2 years |
| | -20°C 1 year |



* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)

SOLVENT & SOLUBILITY

| | | | | | |
|---|--|--------------------------|--------------|-----------|-----------|
| In Vitro | H ₂ O : 50 mg/mL (24.79 mM; Need ultrasonic) | | | | |
| | | Solvent Concentration | Mass 1 mg | 5 mg | 10 mg |
| | Preparing Stock Solutions | 1 mM | 0.4957 mL | 2.4787 mL | 4.9575 mL |
| | | 5 mM | 0.0991 mL | 0.4957 mL | 0.9915 mL |
| 10 mM | | 0.0496 mL | 0.2479 mL | 0.4957 mL | |
| Please refer to the solubility information to select the appropriate solvent. | | | | | |
| In Vivo | 1. Add each solvent one by one: PBS Solubility: 100 mg/mL (49.57 mM); Clear solution; Need ultrasonic | | | | |

BIOLOGICAL ACTIVITY

| | |
|--------------------|--|
| Description | IGF-I (24-41) (Insulin-like Growth Factor I (24-41)) is amino acids 24 to 41 fragment of IGF-I. IGF-I, a 70 aa polypeptide hormone, is a trophic factor for both neurons and glial cells. IGF-I is partly responsible for systemic growth hormone (GH) activities. IGF-I has anabolic, antioxidant, anti-inflammatory and cytoprotective actions. IGF-I (24-41) regulates somatic growth and behavioral development ^{[1][2][3]} . |
| In Vivo | IGF-I (24-41) (ICV; 200 ng dose; 2 µL; postnatal days 2, 4, and 7) regulates somatic growth and behavioral development ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only. |

| | |
|-----------------|--|
| Animal Model: | Mice of an outbred Swiss-derived strain (CD-1) weighing 30-33g (virgin males) or 28-30g (nulliparous females) ^[2] |
| Dosage: | 200 ng dose; 2 μ L |
| Administration: | ICV; postnatal days (PND) 2, 4, and 7 |
| Result: | Increased the rate of ultrasonic calls of the pups measured on PND8. |

REFERENCES

- [1]. D Santucci, et al. IGF-I and IGF-I24-41 but not IGF-I57-70 affect somatic and neurobehavioral development of newborn male mice. *Brain Res Bull.* 1994;35(4):367-71.
- [2]. Dan Meng, et al. Insulin-like growth factor-I (IGF-I) induces epidermal growth factor receptor transactivation and cell proliferation through reactive oxygen species. *Free Radic Biol Med.* 2007 Jun 1;42(11):1651-60.
- [3]. Puche JE, et al. Human conditions of insulin-like growth factor-I (IGF-I) deficiency. *J Transl Med.* 2012 Nov 14;10:224.

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

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