

## [Ala17]-MCH

|                             |   |       |          |
|-----------------------------|---|-------|----------|
| <b>Cat. No.:</b>            | HY-P1204  |       |          |
| <b>CAS No.:</b>             | 359784-84-2   |       |          |
| <b>Molecular Formula:</b>   | C <sub>97</sub> H <sub>155</sub> N <sub>29</sub> O <sub>26</sub> S <sub>4</sub> |       |          |
| <b>Molecular Weight:</b>    | 2271.71   |       |          |
| <b>Sequence Shortening:</b> | DFDMLRCMLGRVYRPCAQV (Disulfide bridge:Cys7-Cys16)                               |       |          |
| <b>Target:</b>              | MCHR1 (GPR24)   |       |          |
| <b>Pathway:</b>             | GPCR/G Protein; Neuronal Signaling  |       |          |
| <b>Storage:</b>             | Powder  | -80°C | 2 years  |
|                             |   | -20°C | 1 year   |
|                             | In solvent  | -80°C | 6 months |
|                             |   | -20°C | 1 month  |

DFDMLRCMLGRVYRPCAQV (Disulfide bridge:Cys7-Cys16)

### SOLVENT & SOLUBILITY

|   |  |                              |             |             |             |              |
|---|--|------------------------------|-------------|-------------|-------------|--------------|
| <b>In Vitro</b>   | DMSO : 25 mg/mL (11.00 mM); Need ultrasonic  |                              |             |             |             |              |
|   | <b>Preparing Stock Solutions</b>   | <b>Solvent Concentration</b> | <b>Mass</b> | <b>1 mg</b> | <b>5 mg</b> | <b>10 mg</b> |
|   |  | <b>1 mM</b>                  |             | 0.4402 mL   | 2.2010 mL   | 4.4020 mL    |
|   |  | <b>5 mM</b>                  |             | 0.0880 mL   | 0.4402 mL   | 0.8804 mL    |
| <b>10 mM</b>  |  |                              | 0.0440 mL   | 0.2201 mL   | 0.4402 mL   |              |
| Please refer to the solubility information to select the appropriate solvent. |  |                              |             |             |             |              |
| <b>In Vivo</b>  | <ol style="list-style-type: none"> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 40% PEG300 &gt;&gt; 5% Tween-80 &gt;&gt; 45% saline<br/>Solubility: ≥ 2.5 mg/mL (1.10 mM); Clear solution</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% (20% SBE-β-CD in saline)<br/>Solubility: ≥ 2.5 mg/mL (1.10 mM); Clear solution</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% corn oil<br/>Solubility: ≥ 2.5 mg/mL (1.10 mM); Clear solution</li> </ol> |                              |             |             |             |              |

### BIOLOGICAL ACTIVITY

|                                     |  |
|-------------------------------------|--|
| <b>Description</b>                  | [Ala17]-MCH, a MCH analogue (HY-P1525A), is a selective ligand for MCHR <sub>1</sub> (K <sub>i</sub> =0.16 nM) over MCHR <sub>2</sub> (K <sub>i</sub> =34 nM). [Eu <sup>3+</sup> chelate-labeled [Ala17]-MCH shows high affinity for MCHR <sub>1</sub> (K <sub>d</sub> =0.37 nM) while has little demonstrable binding affinity for MCHR <sub>2</sub> <sup>[1]</sup> . |
| <b>IC<sub>50</sub> &amp; Target</b> | K <sub>i</sub> : 0.16 nM (MCHR1)<br>K <sub>i</sub> : 34 nM (MCHR2) <sup>[1]</sup>  |

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## REFERENCES

[1]. Xiaoying Gao, et al. Europium-labeled melanin-concentrating hormone analogues: ligands for measuring binding to melanin-concentrating hormone receptors 1 and 2. *Anal Biochem.* 2004 May 15;328(2):187-95.

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

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