

## PKA Inhibitor Fragment (6-22) amide TFA

|                             |   |  |         |
|-----------------------------|---|--|---------|
| <b>Cat. No.:</b>            | HY-P1290A   |  |         |
| <b>Molecular Formula:</b>   | C <sub>82</sub> H <sub>131</sub> F <sub>3</sub> N <sub>28</sub> O <sub>26</sub>     |  |         |
| <b>Molecular Weight:</b>    | 1982.08   |  |         |
| <b>Sequence Shortening:</b> | TYADFIASGRTGRRNAI-NH <sub>2</sub>   |  |         |
| <b>Target:</b>              | PKA   | TYADFIASGRTGRRNAI-NH <sub>2</sub> (TFA salt) |         |
| <b>Pathway:</b>             | Protein Tyrosine Kinase/RTK; Stem Cell/Wnt  |  |         |
| <b>Storage:</b>             | 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

|   |   |                          |           |           |           |           |
|---|---|--------------------------|-----------|-----------|-----------|-----------|
| <b>In Vitro</b>   | H <sub>2</sub> O : 50 mg/mL (25.23 mM; Need ultrasonic) |                          |           |           |           |           |
|   |   | Solvent<br>Concentration | Mass      |           |           |           |
|   | <b>Preparing Stock Solutions</b>                        |                          |           | 1 mg      | 5 mg      | 10 mg     |
|   |   | 1 mM                     |           | 0.5045 mL | 2.5226 mL | 5.0452 mL |
|   |   | 5 mM                     |           | 0.1009 mL | 0.5045 mL | 1.0090 mL |
|   | 10 mM   |                          | 0.0505 mL | 0.2523 mL | 0.5045 mL |           |
| Please refer to the solubility information to select the appropriate solvent. |   |                          |           |           |           |           |

### BIOLOGICAL ACTIVITY

|                                     |   |
|-------------------------------------|---|
| <b>Description</b>                  | PKA Inhibitor Fragment (6-22) amide TFA is an inhibitor of cAMP-dependent protein kinase A (PKA), with a K <sub>i</sub> of 2.8 nM. PKA Inhibitor Fragment (6-22) amide TFA can significantly reverse low-level morphine antinociceptive tolerance in mice <sup>[1][2]</sup> . |
| <b>IC<sub>50</sub> &amp; Target</b> | PKA<br>2.8 nM (K <sub>i</sub> )   |

### REFERENCES

[1]. Katz BM, et, al. Synthesis, characterization and inhibitory activities of (4-N3[3,5-3H]Phe10)PKI(6-22)amide and its precursors: photoaffinity labeling peptides for the active site of cyclic AMP-dependent protein kinase. *Int J Pept Protein Res.* 1989 Jun;33(6):439-45.

[2]. Dalton GD, et, al. Alterations in brain Protein Kinase A activity and reversal of morphine tolerance by two fragments of native Protein Kinase A inhibitor peptide (PKI). *Neuropharmacology.* 2005 Apr; 48(5): 648-57.

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

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