## **DALDA** acetate

®

| Cat. No.:            | HY-P3870A  |      |
|----------------------|--|------|
| Molecular Formula:   | $C_{32}H_{49}N_9O_7$   | он   |
| Molecular Weight:    | 671.79   |      |
| Sequence:            | Tyr-{D-Arg}-Phe-Lys-NH2  |      |
| Sequence Shortening: | Y-{D-Arg}-FK-NH2   |      |
| Target:              | Opioid Receptor  | NH O |
| Pathway:             | GPCR/G Protein; Neuronal Signaling   |      |
| Storage:             | Sealed storage, away from moisture and light                                       |      |
|                      | 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)   |      |

## SOLVENT & SOLUBILITY

|  |                              | Solvent Mass<br>Concentration | 1 mg      | 5 mg      | 10 mg      |
|--|------------------------------|-------------------------------|-----------|-----------|------------|
|  | Preparing<br>Stock Solutions | 1 mM                          | 1.4886 mL | 7.4428 mL | 14.8856 mL |
|  |                              | 5 mM                          | 0.2977 mL | 1.4886 mL | 2.9771 mL  |
|  |                              | 10 mM                         | 0.1489 mL | 0.7443 mL | 1.4886 mL  |

| BIOLOGICAL ACTIVITY |  |  |
|---------------------|--|--|
| Description         | DALDA acetate is a potent and highly selective μ-opioid receptor agonist with a K <sub>i</sub> of 1.69 nM. DALDA acetate shows antinociceptive and respiratory effects <sup>[1]</sup> .  |  |
| In Vitro            | DALDA acetate carrys a net positive charge (3+) at physiological pH and is thus hydrophilic and more polar than morphine <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.  |  |
| In Vivo             | DALDA acetate (0-7 nmol/rat; i.t.; once) shows antinociceptive and respiratory effects in rats <sup>[1]</sup> .<br>DALDA acetate (0.1 and 1.0 μg/side; ICV; once) results in biphasic effects, with an initial suppression, an intermediate<br>marked inhibition, followed by activation for horizontal movement, rearing and stereotypy times in rats <sup>[2]</sup> .<br>MCE has not independently confirmed the accuracy of these methods. They are for reference only. |  |



## REFERENCES

[1]. Shimoyama M, et al. Antinociceptive and respiratory effects of intrathecal H-Tyr-D-Arg-Phe-Lys-NH2 (DALDA) and [Dmt1] DALDA. Journal of Pharmacology and Experimental Therapeutics, 2001, 297(1): 364-371.

[2]. Meyer ME, et al. DALDA (H-Tyr-D-Arg-Phe-Lys-NH2), a potent mu-opioid peptide agonist, affects various patterns of locomotor activities. Pharmacol Biochem Behav. 1995 May;51(1):149-51.

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

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