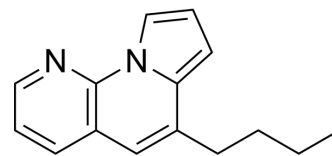


ALP/Carbonic anhydrase-IN-1

| | | | |
|--------------------|--|-------|----------|
| Cat. No.: | HY-157139 | | |
| CAS No.: | 2091887-74-8 | | |
| Molecular Formula: | C ₁₅ H ₁₆ N ₂ | | |
| Molecular Weight: | 224.3 | | |
| Target: | Carbonic Anhydrase; Phosphatase | | |
| Pathway: | Metabolic Enzyme/Protease | | |
| Storage: | Powder | -20°C | 3 years |
| | In solvent | -80°C | 6 months |
| | | -20°C | 1 month |



SOLVENT & SOLUBILITY

| | | | | | | |
|---|--|--------------------------|-------|-----------|------------|------------|
| In Vitro | DMSO : 100 mg/mL (445.83 mM; Need ultrasonic) | | | | | |
| | Preparing Stock Solutions | Solvent Concentration | Mass | 1 mg | 5 mg | 10 mg |
| | | | 1 mM | 4.4583 mL | 22.2916 mL | 44.5831 mL |
| | | | 5 mM | 0.8917 mL | 4.4583 mL | 8.9166 mL |
| | | | 10 mM | 0.4458 mL | 2.2292 mL | 4.4583 mL |
| Please refer to the solubility information to select the appropriate solvent. | | | | | | |
| In Vivo | 1. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (11.15 mM); Clear solution | | | | | |

BIOLOGICAL ACTIVITY

| | | | | |
|---------------------------|---|--------------------------------------|---------------------------------------|--|
| Description | ALP/Carbonic anhydrase-IN-1 (Compound 1e) is a dual carbonic anhydrase (CA) and alkaline phosphatase (ALP) inhibitor. ALP/Carbonic anhydrase-IN-1 shows IC ₅₀ values of 0.44 μM, 1.61 μM, 0.51 μM, and 0.107 μM for CA-II, CA-IX, CA-XII, and ALP, respectively ^[1] . | | | |
| IC ₅₀ & Target | CA I 0.44 μM (IC ₅₀) | CA II 1.61 μM (IC ₅₀) | CA XII 0.51 μM (IC ₅₀) | Alkaline phosphatase 0.107 μM (IC ₅₀) |

REFERENCES

[1]. Salman Alrokayan, et al. [1, 8]-Naphthyridine derivatives as dual inhibitor of alkaline phosphatase and carbonic anhydrase. BMC Chem. 2023 Oct 25;17(1):142.

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

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