# BRD6688

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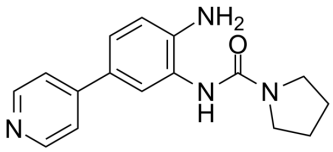
|---|---|
| **Cat. No.:** | HY-117709 |
| **CAS No.:** | 1404562-17-9 |
| **Molecular Formula:** | $C_{16}H_{18}N_4O$ |
| **Molecular Weight:** | 282.34 |
| **Target:** | HDAC |
| **Pathway:** | Cell Cycle/DNA Damage; Epigenetics |
| **Storage:** | Powder -20°C 3 years<br>4°C 2 years<br>In solvent -80°C 6 months<br>-20°C 1 month |



## SOLVENT & SOLUBILITY

**In Vitro**

DMSO : 100 mg/mL (354.18 mM; Need ultrasonic)

**Preparing Stock Solutions**

| Solvent / Mass / Concentration | 1 mg | 5 mg | 10 mg |
|---|---|---|---|
| 1 mM | 3.5418 mL | 17.7091 mL | 35.4183 mL |
| 5 mM | 0.7084 mL | 3.5418 mL | 7.0837 mL |
| 10 mM | 0.3542 mL | 1.7709 mL | 3.5418 mL |

Please refer to the solubility information to select the appropriate solvent.

**In Vivo**

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: 2.5 mg/mL (8.85 mM); Clear solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: 2.5 mg/mL (8.85 mM); Clear solution; Need ultrasonic

## BIOLOGICAL ACTIVITY

**Description**

BRD6688 is a selective HDAC2 inhibitor. BRD6688 increases H4K12 and H3K9 histone acetylation in primary mouse neuronal cells. BRD6688 crosses the blood brain barrier and rescues the memory defects associated with p25 induced neurodegeneration in contextual fear conditioning in a CK-p25 mouse model[1].

**$IC_{50}$ & Target**

HDAC2

## REFERENCES

[1]. Wagner FF, et al. Kinetically Selective Inhibitors of Histone Deacetylase 2 (HDAC2) as Cognition Enhancers. Chem Sci. 2015 Jan 1;6(1):804-815.



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