

## PB28, Sigma-2 agonist

Catalog	Unit
TBI4665-5MG	5 mg
TBI4665-25MG	25 mg

### Product Details

**Formal Name:** 1-Cyclohexyl-4-[3-(1,2,3,4-tetrahydro-5-methoxy-1-naphthalenyl)propyl]piperazine, dihydrochloride

**Molecular Formula:** C<sub>24</sub>H<sub>38</sub>N<sub>2</sub>O·2HCl

**Formula Weight:** 443.50

**CAS Number:** 172907-03-8

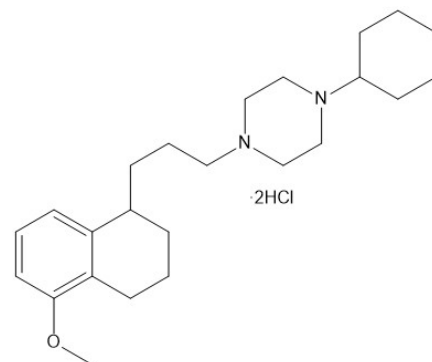
**Purity:** >98%

**Formulation:** powder

**Solubility:** Soluble in DMSO (up to 25 mg/ml) or in Water (up to 5 mg/ml)

**Storage:** -20°C

**Stability:** ≥ 1 year.



### Applications

Sigma-2 agonist

### Functions

Potent, high affinity ( $K_i = 0.34$  nM)  $\sigma_2$  agonist. Its antiproliferative ( $EC_{50} \sim 0.4$   $\mu$ M) and cytotoxic ( $EC_{50} \sim 12$   $\mu$ M) effects on glioma and neuroblastoma cell lines indicate it is also a  $\sigma_1$  antagonist. PB28 also inhibited cell growth in MCF7 breast cancer lines, and was strongly synergistic with doxorubicin. PB28 potently inhibited Kv2.1 channels in a  $\sigma$ -independent manner. Recently, PB28 showed potent ( $IC_{50} = 280$  nM; 20-fold more than hydroxychloroquine) anti-SARS-CoV2 activity, without cardiac side effects.

### Application Procedures

First dissolved in DMSO (up to 25 mg/ml) or in Water (up to 5 mg/ml), then diluted to aqueous buffer. Solutions in DMSO may be stored at -20°C for up to 2 months.

**For research use only.**