Product Name: CL 82198 hydrochloride

Chemical Properties

**Product Name:** CL 82198 hydrochloride

**Cas No.:** 307002-71-7

**M.Wt:** 338.83

**Formula:** C17H33N2O3.HCl

**Chemical Name:** N-(4-morpholin-4-ylbutyl)-1-benzofuran-2-carboxamide; hydrochloride

**Canonical SMILES:** C1CCN1CCCNC(=O)C2=CC3=CC=CC=C3O2.Cl

**Solubility:** Soluble in DMSO > 10 mM

**Storage:** Desiccate at RT

**General tips:** For obtaining a higher solubility, please warm the tube at 37°C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

**Shopping Condition:** Evaluation sample solution: ship with blue ice
All other available size: ship with RT, or blue ice upon request

Biological Activity

**Targets:** Proteases

**Pathways:** MMP

**Description:**
IC50: 89% inhibition at 10μg/mL
CL 82198 is a selective MMP-13 inhibitor.
Matrix metalloproteinases (MMPs) are involved in the degradation of the extracellular matrix associated with normal tissue remodeling processes such as wound healing, pregnancy, and angiogenesis. Expression and activity of MMPs is highly controlled due to their degradative nature where the apparent loss in this regulation leads to the pathological destruction of...
connective tissue and the ensuing disease state.

In vitro: CL-82198 was identified as a weak inhibitor against MMP-13 and demonstrated no activity against MMP-1, MMP-9, or the related enzyme TACE. Bearing drug-like properties, CL-82198 was regarded as an ideal candidate for optimization of enzyme potency and selectivity. In NMR binding studies, it was shown that CL-82198 bound within the entire S1’ pocket of MMP-13, which was the basis of its selectivity against MMP-1, MMP-9, and TACE [1].

In vivo: To investigate the contribution of MMP-13 down-regulation during gastroprotection by acetaminophen, the effects of CL-82198 on IBP-induced gastric damage were evaluated. Results showed that CL-82198 decreased gastric lesions in a dose-dependent manner in the presence of IBP. Compared with IBP administration alone, CL-82198 administered at 0.2 and 1.0 mg/kg resulted in 40.3% and 72.1% decrease in gastric lesion, respectively [1].

Clinical trial: N/A

Reference:

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most ApexBio products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Short-term storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.