

Product Data Sheet

Product Name: PTX80
Cat. No.: GC92023

Chemical Properties

Cas. No. 2376297-69-5

Chemical Name 4,4'-((1E,1'E)-(1-((3-(dimethylamino)propyl)sulfonyl)-4-oxopiperidine-3,5-diylidene)bis(methaneylylidene))dibenzonitrile

SMILES O=C(/C(CN(C/1S(CCCN(C)C)(=O)=O)=C/C2=CC=C(C=C2)C#N)C1=C\C3=CC=C(C=C3)C#N

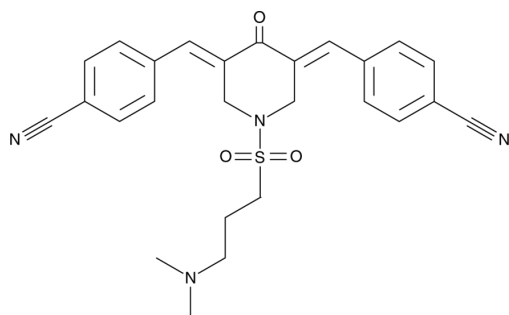
Formula $C_{26}H_{26}N_4O_3S$ M.Wt 474.6

Solubility Acetonitrile: Slightly soluble: 0.1-1 mg/ml, DMSO: Sparingly soluble: 1-10 mg/ml Storage -20°C

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.

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

Structure



Background

PTX80 is an antagonist of p62 ($\text{IC}_{50} = 31.18 \text{ nM}$ for the human receptor).¹ It decreases the soluble fraction of p62 in MM.1S multiple myeloma cells when used at a concentration of $1.5 \text{ }\mu\text{M}$. PTX80 (200 nM) increases the levels of polyubiquitinated proteins in MM.1S cells. It induces apoptosis in MM.1S cells when used at a concentration of 100 nM . PTX80 ($50\text{-}400 \text{ nM}$) decreases the survival of CD138^{+} cells, but not CD138^{-} cells, in primary plasma cells derived from patients with multiple

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

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myeloma. It reduces the viability of tumor tissue samples isolated from ten patient-derived xenograft (PDX) mouse models of colorectal cancer (IC_{50} s = 113-1,220 nM). *In vivo*, PTX80 (8 or 12 mg/kg twice per week) reduces tumor volume in an HCT116 colorectal cancer mouse xenograft model.

References:

[1]. Kalid, O., Gotliv, I., Levy-Apter, E., et al. PTX80, a novel compound targeting the autophagy receptor p62/SQSTM1 for treatment of cancer. *Chem. Biol. Drug Des.* 100(5)623-638(2022).

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