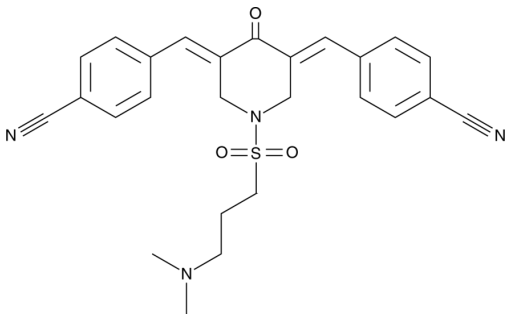
Product Data Sheet

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/1)S(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 (IC_{50} = 31.18 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 ?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 (50-400 nM) decreases the survival of $CD138^+$ cells, but not $CD138^-$ cells, in primary plasma cells derived from patients with multiple

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 cancerChem. Biol. Drug Des.100(5)623-638(2022).