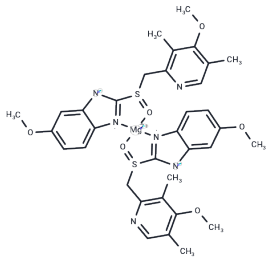
Data Sheet (Cat.No.T2686)

TargetMol

Esomeprazole Magnesium

Chemical Properties



CAS No. : 161973-10-0

Formula: C34H36MgN6O6S2

Molecular Weight: 713.12

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	Esomeprazole Magnesium (NEXIUM) is the S-isomer of omeprazole, can reduce gastric acid secretion with selective and irreversible proton pump inhibitor activity. Esomeprazole magnesium acts as an exosome inhibitor by blocking the exosome release via the inhibition of V-H+-ATPases
Targets(IC50)	ATPase,Proton pump
Kinase Assay	Purified enzyme assays: ATM for use in the in vitro assay is obtained from HeLa nuclear extract by immunoprecipitation with rabbit polyclonal antiserum raised to the COOH-terminal 400 amino acids of ATM in buffer containing 25 mM HEPES (pH 7.4), 2 mM MgCl2, 250 mM KCl, 500 μM EDTA, 100 μM Na3VO4, 10% v/v glycerol, and 0.1% v/v Igepal. ATM-antibody complexes are isolated from nuclear extract by incubating with protein A-Sepharose beads for 1 hour and then through centrifugation to recover the beads. In the well of a 96-well plate, ATM-containing Sepharose beads are incubated with 1 μg of substrate glutathione S-transferase-p53N66 (NH2-terminal 66 amino acids of p53 fused to glutathione S-transferase) in ATM assay buffer [25 mM HEPES (pH 7.4), 75 mM NaCl, 3 mM MgCl2, 2 mM MnCl2, 50 μM Na3VO4, 500 μM DTT, and 5% v/v glycerol] at 37 °C in the presence or absence of inhibitor. After 10 minutes with gentle shaking, ATP is added to a final concentration of 50 μM and the reaction continued at 37 °C for an additional 1 hour. The plate is centrifuged at 250 × g for 10 minutes (4 °C) to remove the ATM-containing beads, and the supernatant is removed and transferred to a white opaque 96-well plate and incubated at room temperature for 1.5 hours to allow glutathione S-transferase-p53N66 binding. This plate is then washed with PBS, blotted dry, and analyzed by a standard ELISA technique with a phospho-serine 15 p53 antibody. The detection of phosphorylated glutathione S-transferase-p53N66 substrate is performed in combination with a goat antimouse horseradish peroxidase-conjugated secondary antibody. Enhanced chemiluminescence solution is used to produce a signal and chemiluminescent detection is carried out.

Solubility Information

Solubility	Ethanol: 143 mg/mL (200.53 mM),Sonication is recommended. H2O: < 1 mg/mL (insoluble or slightly soluble), DMSO: 45 mg/mL (63.1 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.4023 mL	7.0114 mL	14.0229 mL
5 mM	0.2805 mL	1.4023 mL	2.8046 mL
10 mM	0.1402 mL	0.7011 mL	1.4023 mL
50 mM	0.028 mL	0.1402 mL	0.2805 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Reference

Kumar P, et al. Drug Deliv Transl Res. 2015 Jun;5(3):243-56.