**Product Name**: Rebeprazole sodium  
**Catalog Number**: T1651  
**CAS Number**: 117976-90-6  
**Molecular Formula**: C18H20N3NaO3S  
**Molecular Weight**: 381.42

**Description**: Rabeprazole sodium is a 4-(3-methoxypropoxy)-3-methylpyridinyl derivative of timoprazole that is used in the therapy of stomach ulcers and Zollinger-Ellison syndrome. The drug inhibits H(+)-K(+)-exchanging ATPase which is found in gastric parietal cells.

**Storage**: 2 years -80°C in solvent; 3 years -20°C powder;

**Solubility**

- **DMSO**: 71 mg/mL (186.1 mM)
- **Ethanol**: 71 mg/mL (186.1 mM)
- **Water**: 70 mg/mL (183.5 mM)

( < 1 mg/ml refers to the product slightly soluble or insoluble )

**Receptor (IC50)**  
Proton pump

**In vitro Activity**

Administration of rabeprazole leads to a marked decrease in the viability of MKN-28 cells. Exposure to rabeprazole induces significant apoptosis in AGS cells. Rabeprazole completely inhibits the phosphorylation of ERK 1/2 in the MKN-28 cells, whereas the same effect is not observed in either the KATO III or MKN-45 cells. Rabeprazole is able to efficaciously inhibit the phosphorylation of ERK 1/2 in the gastric cancer cells. Thus, rabeprazole can attenuate the cell viability of human gastric cancer cells through inactivation of the ERK1/2 signaling pathway[2].

**In vivo Activity**

Rabeprazole does not appear to exacerbate bone metabolic disorders in gastrectomized rats, but rather ameliorates the TG-induced BMD decrease[1].

**Cell Assay**

Rabeprazole is administrated to three gastric cancer cell lines, KATO III, MKN-28 and MKN-45, at a dosage of 0.2 mM for 16 h. The viability of these cells is determined by a trypan blue exclusion assay.(Only for Reference)

Cell line: Human gastric cancer cell lines, KATO III, MKN-28 and MKN-45

**Reference**


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