PEG300

#Cat: NB-64-38248-100mL **Size: 100 mL**

Chemical Properties:

CAS No: 25322-68-3

Formula:

Molecular Weight: 10000

Appearance: Liquid

Storage: -20°C for 2 years, 4°C for 1 year

Biological Description:

Description	PEG300 (Polyethylene glycol 300) is a polymer formed from repeating units of ethylene glycol that is water soluble, low immunogenicity, and biocompatible. PEG300 is a neutral polymer with a molecular weight of 300.
Targets (IC50)	Others
In vitro	**METHODS**: Human colorectal adenocarcinoma cells Caco-2 were treated with PEG300 (30 w/v% in 100 μL) for 30 min, and cell growth inhibition was detected by MTT. **RESULTS**: PEG300 treatment severely reduced cell viability, and the cell survival rate was only 20%. [1]
In vivo	**METHODS**: To study the effect of Dasatinib on diabetic cardiomyopathy, Dasatinib (5 mg/kg in 10% DMSO + 90% PEG-300) was administered by gavage to BKS.Cg- +Leprdb/+Leprdb/OlaHsd (db/db) mice once a week for four weeks. **RESULTS**: Dasatinib counteracted obesity in the heart and bone marrow as well as cardiac fibrosis. [2] **METHODS**: To test the in vivo effects of treatment with ALW-II-41-27 (an EPHA2 inhibitor) and/or cetuximab, cetuximab (25 mg/kg in 10% 1-methyl-2-pyrrolidinone + 90% PEG 300 twice weekly) and ALW-II-41-27 (30 mg/kg/day) were injected intraperitoneally into balb/c athymic (nu+/nu+) mice bearing human colorectal adenocarcinoma tumor HCT15 for six weeks. **RESULTS**: The combination of ALW-II-41-27 and cetuximab significantly inhibited tumor growth. [3]

Solubility Information

Solubility	DMSO: 100 mg/mL (10 mM),Sonication is recommended. H_2O: 50 mg/mL (5 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.100 mL	0.500 mL	1.000 mL
5 mM	0.020 mL	0.100 mL	0.200 mL
10 mM	0.010 mL	0.050 mL	0.100 mL
50 mM	0.002 mL	0.010 mL	0.020 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

Pham Le Khanh H, et al. Comparative Investigation of Cellular Effects of Polyethylene Glycol (PEG) Derivatives. Polymers (Basel). 2022 Jan 11;14(2):279.
Hu Y, Wen Q, Cai Y, et al. Alantolactone induces concurrent apoptosis and GSDME-dependent pyroptosis of anaplastic thyroid cancer through ROS mitochondria-dependent caspase pathway. Phytomedicine. 2022: 154528.
Guo Y, Zhu L, Duan Y, et al.Ruxolitinib induces apoptosis and pyroptosis of anaplastic thyroid cancer via the transcriptional inhibition of DRP1-mediated mitochondrial fission.Cell Death & Disease.2024, 15(2): 125.
Gu Y, et al. The tyrosine kinase inhibitor Dasatinib reduces cardiac steatosis and fibrosis in obese, type 2 diabetic mice. Cardiovasc Diabetol. 2023 Aug 17;22(1):214.
Martini G, et al. EPHA2 Is a Predictive Biomarker of Resistance and a Potential Therapeutic Target for Improving Antiepidermal Growth Factor Receptor Therapy in Colorectal Cancer. Mol Cancer Ther. 2019 Apr;18(4):845-855.
Zhou S, Lin W, Jin X, et al.CD97 maintains tumorigenicity of glioblastoma stem cells via mTORC2 signaling and is targeted by CAR Th9 cells.Cell Reports Medicine.2024