

KA2507 monohydrochloride

Chemical Properties

CAS No. :

Formula: C₁₆H₁₅ClN₆O₂

Molecular Weight: 358.78

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

Actual storage temperature shall be subject to the COA.

Biological Description

Description	KA2507 hydrochloride is a powerful and specific HDAC6 inhibitor, possessing an IC ₅₀ value of 2.5 nM. It displays no substantial toxicities while demonstrating significant antitumor efficacy and immune modulatory effects [1].
Targets(IC ₅₀)	Others,HDAC
In vitro	KA2507 hydrochloride does not prevent the proliferation of mouse or human cancer cells at selective concentrations for HDAC6 inhibition in vitro. Anti-proliferative effects manifest only at higher concentrations of KA2507 hydrochloride, accompanied by heightened acetylation of histone H3, indicating that these effects are due to off-target inhibition of class I HDAC and HDAC6 [1].
In vivo	KA2507 hydrochloride, administered orally at doses between 100-200 mg/kg daily for 20 days, demonstrated significant inhibition of tumor growth in the syngeneic B16-F10 mouse melanoma model and showed antitumor efficacy in CT26 and MC38 colorectal cancer models. This compound not only reduced STAT3 activation (indicated by decreased phospho-STAT3 levels) - a crucial suppressor of antitumor immune responses - but also lowered PD-L1 expression and increased MHC class I expression, highlighting its potential in modulating antitumor immunity. However, KA2507 hydrochloride exhibited limited oral bioavailability (15% in mice) and a maximum concentration (C _{max}) of 300 ng/mL at a dosage of 200 mg/kg. This pharmacokinetic profile was established through studies in male C57BL/6 mice utilizing the B16-F10 melanoma model.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.7872 mL	13.9361 mL	27.8722 mL
5 mM	0.5574 mL	2.7872 mL	5.5744 mL
10 mM	0.2787 mL	1.3936 mL	2.7872 mL
50 mM	0.0557 mL	0.2787 mL	0.5574 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.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481