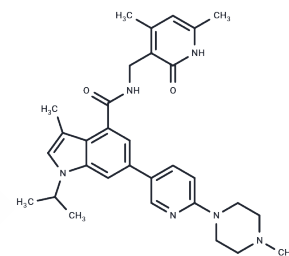


## Chemical Properties

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



## Biological Description

Description	GSK-503, a potent EZH2 inhibitor, has potential antitumor activity.
Targets(IC50)	Histone Methyltransferase
In vitro	GSK503 inhibits the methyltransferase activity of both WT and mutant EZH2 with similar potency. In a panel of seven DLBCL cell lines, GSK503 causes growth inhibition, with enhanced effects when combined with ABT737 or Obatoclax. [1]
In vivo	In C57BL6 mice immunized with SRBC, GSK503 (150 mg/kg, i.p.) reduced the level of H3K27me3 in splenocytes. In male SCID mice bearing SUDHL4 and SUDHL6 tumors, GSK503 (150 mg/kg, i.p.) inhibits tumor growth. [1] In C57BL/6 mice bearing murine B16-F10 tumors, GSK503 (150 mg/kg, i.p.) significantly reduces global H3K27me3 levels, inhibits tumor growth and virtually abolishes metastases formation. [2]
Kinase Assay	In vitro biochemical assays against histone acetylases: GSK503 is profiled to assess inhibition against a panel of histone acetylases. GSK503 is dissolved in DMSO and tested in 10-dose IC50 mode with 3-fold serial dilution starting at 100 $\mu$ M, with a final DMSO concentration of 2%. Anacardic Acid is used as positive control for CBP, GCN5, and pCAF and tested in 10-dose IC50 mode with 3-fold serial dilution starting at 100 $\mu$ M. Curcumin is used as positive control for KAT5, MYST2/KAT7, MYST4/KAT6B, and p300, and tested in 10-dose IC50 mode with 3-fold serial dilution starting at 100 $\mu$ M. Reactions are carried out at 3.08 $\mu$ M Acetyl-CoA. For CBP, GCN5, MYST2/KAT7, pCAF, and p300, the substrate used is histone H3. For KAT5 and MYST4/KAT6B the substrates used are histone H2A and histone H4, respectively.

Solubility Information	
Water	Insoluble
Alcohol	Insoluble
Ether	Insoluble
Chloroform	Insoluble
Benzene	Insoluble
Carbon tetrachloride	Insoluble
Acetic acid	Insoluble
Ammonia	Insoluble
Sulfuric acid	Insoluble
Nitric acid	Insoluble
Hydrochloric acid	Insoluble
Sodium hydroxide	Insoluble
Potassium hydroxide	Insoluble
Silver nitrate	Insoluble
Mercuric nitrate	Insoluble
Mercurous nitrate	Insoluble
Lead nitrate	Insoluble
Barium nitrate	Insoluble
Strontium nitrate	Insoluble
Calcium nitrate	Insoluble
Magnesium nitrate	Insoluble
Zinc nitrate	Insoluble
Copper nitrate	Insoluble
Nickel nitrate	Insoluble
Cobalt nitrate	Insoluble
Manganese nitrate	Insoluble
Iron nitrate	Insoluble
Aluminum nitrate	Insoluble
Chromium nitrate	Insoluble
Vanadium nitrate	Insoluble
Uranium nitrate	Insoluble
Thorium nitrate	Insoluble
Radium nitrate	Insoluble
Polonium nitrate	Insoluble
Astatine nitrate	Insoluble
Francium nitrate	Insoluble
Actinium nitrate	Insoluble
Protactinium nitrate	Insoluble
Neptunium nitrate	Insoluble
Plutonium nitrate	Insoluble
Americium nitrate	Insoluble
Curium nitrate	Insoluble
Berkelium nitrate	Insoluble
Californium nitrate	Insoluble
Einsteinium nitrate	Insoluble
Fermium nitrate	Insoluble
Mendelevium nitrate	Insoluble
Nobelium nitrate	Insoluble
Lanthanum nitrate	Insoluble
Cerium nitrate	Insoluble
Praseodymium nitrate	Insoluble
Neodymium nitrate	Insoluble
Europium nitrate	Insoluble
Gadolinium nitrate	Insoluble
Terbium nitrate	Insoluble
Dysprosium nitrate	Insoluble
Ytterbium nitrate	Insoluble
Lutetium nitrate	Insoluble
Hafnium nitrate	Insoluble
Tantalum nitrate	Insoluble
Tungsten nitrate	Insoluble
Rhenium nitrate	Insoluble
Osmium nitrate	Insoluble
Iridium nitrate	Insoluble
Rhodium nitrate	Insoluble
Palladium nitrate	Insoluble
Silver nitrate	Insoluble
Cadmium nitrate	Insoluble
Mercury nitrate	Insoluble
Thallium nitrate	Insoluble
Lead nitrate	Insoluble
Bismuth nitrate	Insoluble
Antimony nitrate	Insoluble
Arsenic nitrate	Insoluble
Vanadium nitrate	Insoluble
Chromium nitrate	Insoluble
Manganese nitrate	Insoluble
Iron nitrate	Insoluble
Cobalt nitrate	Insoluble
Nickel nitrate	Insoluble
Copper nitrate	Insoluble
Zinc nitrate	Insoluble
Aluminum nitrate	Insoluble
Silicon nitrate	Insoluble
Phosphorus nitrate	Insoluble
Sulfur nitrate	Insoluble
Chlorine nitrate	Insoluble
Bromine nitrate	Insoluble
Iodine nitrate	Insoluble
Fluorine nitrate	Insoluble
Oxygen nitrate	Insoluble
Nitrogen nitrate	Insoluble
Carbon nitrate	Insoluble
Hydrogen nitrate	Insoluble
Helium nitrate	Insoluble
Lithium nitrate	Insoluble
Sodium nitrate	Insoluble
Potassium nitrate	Insoluble
Ammonium nitrate	Insoluble
Calcium nitrate	Insoluble
Strontium nitrate	Insoluble
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Silicon nitrate	Insoluble
Phosphorus nitrate	Insoluble
Sulfur nitrate	Insoluble
Chlorine nitrate	Insoluble
Bromine nitrate	Insoluble
Iodine nitrate	Insoluble
Fluorine nitrate	Insoluble
Oxygen nitrate	Insoluble
Nitrogen nitrate	Insoluble

Solubility	DMSO: 93 mg/mL (176.58 mM),Sonication is recommended. Ethanol: 25 mg/mL (47.47 mM),Sonication is recommended. H2O: < 1 mg/mL (insoluble or slightly soluble), (< 1 mg/ml refers to the product slightly soluble or insoluble)
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## A DRUG SCREENING EXPERT

### Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.8987 mL	9.4936 mL	18.9872 mL
5 mM	0.3797 mL	1.8987 mL	3.7974 mL
10 mM	0.1899 mL	0.9494 mL	1.8987 mL
50 mM	0.038 mL	0.1899 mL	0.3797 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

Béguelin W, et al. Cancer Cell. 2013, 23(5), 677-692  
Zingg D, et al. Nat Commun. 2015, 6, 6051.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

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