

## Zilurgisertib fumarate

## Chemical Properties

CAS No. : 2173390-30-0

Formula: C30H38N4O3.xC4H4O4

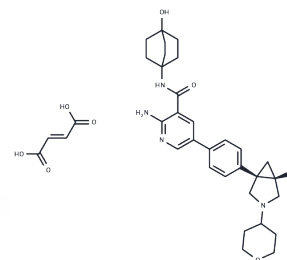
Molecular Weight:

Storage:

Store at low temperature, Keep away from moisture

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	Zilurgisertib fumarate (INB-000928 fumarate) is a potent and selective inhibitor of Activin Receptor-Like Kinase 2 (ALK2/ACVR1). It significantly inhibits ALK2 kinase activity (IC50 = 15 nM) and downregulates BMP-6-induced SMAD1/5 phosphorylation (IC50 = 63 nM). By blocking ALK2-mediated signaling, Zilurgisertib suppresses the production of hepcidin in hepatocytes (IC50 = 20 nM), thereby modulating iron metabolism. In preclinical studies, Zilurgisertib demonstrates the potential to improve anemia in cancer-induced models by effectively increasing hemoglobin levels.
Targets(IC50)	ALK
In vitro	Zilurgisertib fumarate inhibits ALK2 kinase activity (IC50 = 15 nM) and suppresses BMP-6-induced SMAD1/5 phosphorylation (IC50 = 63 nM). In Huh-7 cells, it potently reduces BMP-6-stimulated hepcidin production with an IC50 of 20 nM [2].
In vivo	Systemic administration of Zilurgisertib fumarate improves anemia in mouse models of cancer-induced anemia. It effectively increases hemoglobin (Hb) levels and red blood cell (RBC) counts, demonstrating its potential to restore iron homeostasis in chronic disease environments [2].

## Reference

Li J, et al. Preparation of aminopyridine derivatives and their use as selective ALK-2 inhibitors. WO2018014829 A1.  
 Stubbs M C, et al. ALK2 and JAK2 inhibition for improved treatment of anemia in myelofibrosis patients: Preclinical profile of an ALK2 inhibitor Zilurgisertib in combination with Ruxolitinib. Blood, 2023, 142: 1789.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel: 781-999-4286

E\_mail: info@targetmol.com

Address: 34 Washington Street, Wellesley Hills, MA 02481