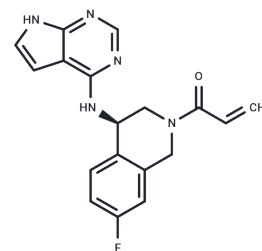


## JAK3-IN-18

## Chemical Properties

CAS No. :	2914873-59-7
Formula:	C <sub>18</sub> H <sub>16</sub> N <sub>2</sub> O
Molecular Weight:	337.35
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	JAK3-IN-18 is a selective and orally active dual inhibitor targeting JAK3 and TEC, with IC <sub>50</sub> values of 0.5391 nM and 12.40 nM, respectively. It demonstrates remarkable selectivity for AK1, AK2, and TYK2, with selectivity ratios exceeding 10,000-fold. JAK3-IN-18 exhibits exceptional therapeutic efficacy in a mouse model of experimental autoimmune encephalomyelitis and is applicable for multiple sclerosis research.
Targets(IC <sub>50</sub> )	JAK, Tyrosinase
In vitro	JAK3-IN-18 (Compound 8a) has an IC <sub>50</sub> value of 177.8 nM for inhibiting p-STAT5 in IL-15 stimulated human whole blood assays when used in concentrations from 1 to 100000 nM for 80 minutes. At 1 μM concentration for 135 minutes, it suppresses over 60% activity in 11 kinases, excluding JAK3 and TEC, out of a panel of 310 kinases. JAK3-IN-18 at 10 μM for up to 60 minutes demonstrates good stability in GSH and possesses favorable drug-like properties.
In vivo	JAK3-IN-18 (Compound 8a), administered orally at 10-100 mg/kg twice daily for 24 days, demonstrates exceptional therapeutic efficacy in a mouse model of experimental autoimmune encephalomyelitis (EAE), which is used to study multiple sclerosis.

## Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.9643 mL	14.8214 mL	29.6428 mL
5 mM	0.5929 mL	2.9643 mL	5.9286 mL
10 mM	0.2964 mL	1.4821 mL	2.9643 mL
50 mM	0.0593 mL	0.2964 mL	0.5929 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**

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

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