

SHR0302

## Chemical Properties

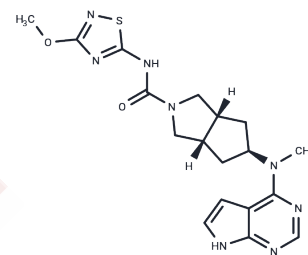
CAS No. : 1445987-21-2

Formula: C<sub>18</sub>H<sub>22</sub>N<sub>8</sub>O<sub>2</sub>S

Molecular Weight: 414.48

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	SHR0302 (ARQ252) is a JAK inhibitor that binds JAK1 with stronger affinity than others (Selectivity for JAK1 is more than 10 times for JAK2, 77 times for JAK3, 420 times for Tyk2).
Targets(IC50)	Apoptosis,JAK
In vitro	SHR0302 (1nM-10μM) exerted an inhibitory effect on the activation, proliferation and migration of hepatic stellate cells (HSCs). SHR0302 induced the apoptosis of HSCs. The pharmacological inhibition of the JAK1/signal transducer and activator of transcription (STAT)3 pathway led to the disruption of functions essential for HSC[1].
In vivo	SHR0302 may attenuate the severity of AA rats, partially through reducing Th17 function and total B cell proportion by inhibiting JAK1-STAT3 phosphorylation[2].

## Solubility Information

Solubility	DMSO: 30 mg/mL (72.38 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween-80+45% Saline: 2 mg/mL (4.83 mM),Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

### Preparing Stock Solutions

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	1mg	5mg	10mg
1 mM	2.4127 mL	12.0633 mL	24.1266 mL
5 mM	0.4825 mL	2.4127 mL	4.8253 mL
10 mM	0.2413 mL	1.2063 mL	2.4127 mL
50 mM	0.0483 mL	0.2413 mL	0.4825 mL

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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.

### Reference

Gu Y J , Sun W Y , Zhang S , et al. Targeted blockade of JAK/STAT3 signaling inhibits proliferation, migration and collagen production as well as inducing the apoptosis of hepatic stellate cells[J]. International Journal of Molecular Medicine, 2016.

JAK1-STAT3 blockade by JAK inhibitor SHR0302 attenuates inflammatory responses of adjuvant-induced arthritis rats and decreases Th17 and total Bcells[J]. Joint Bone Spine Revue Du Rhumatisme, 2016:525-532.

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