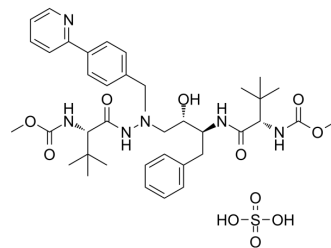


## Atazanavir sulfate

<b>Cat. No.:</b>	HY-17367A
<b>CAS No.:</b>	229975-97-7
<b>Molecular Formula:</b>	C <sub>38</sub> H <sub>54</sub> N <sub>6</sub> O <sub>11</sub> S
<b>Molecular Weight:</b>	803
<b>Target:</b>	HIV; HIV Protease; Cytochrome P450; P-glycoprotein; SARS-CoV; Endogenous Metabolite
<b>Pathway:</b>	Anti-infection; Metabolic Enzyme/Protease; Membrane Transporter/Ion Channel
<b>Storage:</b>	4°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 166 mg/mL (206.72 mM; Need ultrasonic and warming)  
H<sub>2</sub>O : < 0.1 mg/mL (insoluble)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	1.2453 mL	6.2267 mL	12.4533 mL
	5 mM	0.2491 mL	1.2453 mL	2.4907 mL
	10 mM	0.1245 mL	0.6227 mL	1.2453 mL

Please refer to the solubility information to select the appropriate solvent.

#### In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline  
Solubility: ≥ 2.5 mg/mL (3.11 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
Solubility: ≥ 2.5 mg/mL (3.11 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil  
Solubility: ≥ 2.5 mg/mL (3.11 mM); Clear solution
- Add each solvent one by one: 5% DMSO >> 40% PEG300 >> 5% Tween-80 >> 50% saline  
Solubility: ≥ 2.5 mg/mL (3.11 mM); Clear solution
- Add each solvent one by one: 5% DMSO >> 95% (20% SBE-β-CD in saline)  
Solubility: ≥ 2.5 mg/mL (3.11 mM); Clear solution

### BIOLOGICAL ACTIVITY

#### Description

Atazanavir (BMS-232632) sulfate, a highly selective HIV-1 protease inhibitor, is the first protease inhibitor approved for once-daily administration<sup>[1]</sup>. Atazanavir sulfate is a substrate and inhibitor of CYP3A4, and an inhibitor and inducer of P-glycoprotein (P-gp)<sup>[2]</sup>. Atazanavir sulfate is also a SARS-CoV 3CL<sup>PRO</sup> inhibitor with an IC<sub>50</sub> of 3.49 μM<sup>[3]</sup>.

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IC <sub>50</sub> & Target	CYP3	HIV-1
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## CUSTOMER VALIDATION

- Signal Transduct Target Ther. 2021 May 29;6(1):212.
- Nat Commun. 2020 Sep 4;11(1):4417.
- Int J Antimicrob Agents. 2019 Dec;54(6):814-819.
- PLoS Biol. 2020 Jan 16;18(1):e3000599.
- Aging Cell. 2022 Dec 20;e13750.

See more customer validations on [www.MedChemExpress.com](http://www.MedChemExpress.com)

## REFERENCES

[1]. Havlir DV, et al. Atazanavir: new option for treatment of HIV infection. Clin Infect Dis. 2004 Jun 1;38(11):1599-604.

[2]. Wood R. Atazanavir: its role in HIV treatment. Expert Rev Anti Infect Ther. 2008 Dec;6(6):785-96.

[3]. Qi Sun, et al. Bardoxolone and bardoxolone methyl, two Nrf2 activators in clinical trials, inhibit SARS-CoV-2 replication and its 3C-like protease. Signal Transduct Target Ther. 2021 May 29;6(1):212.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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