

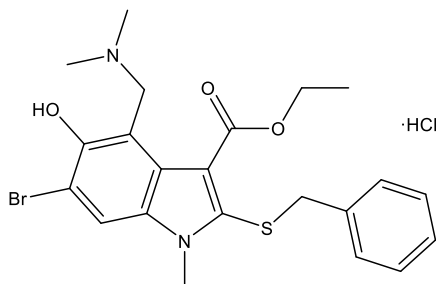
Catalog # 10-4472

Umifenovir

CAS# 131707-23-8

Ethyl 6-bromo-4-[(dimethylamino)methyl]-5-hydroxy-1-methyl-2-(phenylsulfanylmethyl)indole-3-carboxylate hydrochloride; Arbidol

Lot # FBS2083



Umifenovir (131707-23-8) is a broad-spectrum antiviral medication.¹ It has shown activity against influenza A,B,and C, respiratory syncytial, SARS-CoV, adeno, parainfluenza type 5, polio, rhino, coxsackie, hanta, chikungunya, hepatitis B and C viruses.^{2,3} It blocks hemagglutinin-mediated membrane fusion of influenza virus particles.² Umifenovir has recently been shown to inhibit SARS-CoV2 infection by blocking virus entry as well as release from endolysosomes during intracellular trafficking.⁵ It has been suggested that Umifenovir may block trimerization of the spike glycoprotein, a key step in host cell adhesion.⁶

- 1) Blaising *et al.* (2014), *Arbidol as a broad-spectrum antiviral: an update*; Antiviral Res., **107** 84
- 2) Boriskin *et al.* (2008), *Arbidol: a broad-spectrum antiviral compound that blocks viral fusion*; Curr. Med. Chem. **15** 997
- 3) Brooks *et al.* (2012), *Antiviral activity of Arbidol, a broad-spectrum drug for use against respiratory viruses, varies according to test conditions*; J. Med. Virol., **84** 170
- 4) Leneva *et al.* (2009), *Characteristics of Arbidol-resistant mutants of influenza virus: Implications for the mechanism of anti-influenza action of arbidol*; Antiviral Res., **81** 132
- 5) Wang *et al.* (2020), *The anti-influenza drug, arbidol is an efficient inhibitor of SARS-CoV-1 in vitro*; Cell Discov., **6** 28
- 6) Vankadari (2020), *Arbidol: A Potential Antiviral Drug for the Treatment of SARS-CoV-2 by Blocking Trimerization of the Spike Glycoprotein*; Int. J. Antimicrob. Agents, **105998**

PHYSICAL DATA

Molecular Weight:	513.88
Molecular Formula:	C ₂₂ H ₂₅ BrN ₂ O ₃ ·HCl
Purity:	99% by HPLC
	NMR: (Conforms)
Solubility:	DMSO (15 mg/ml)
Physical Description:	White solid
Storage and Stability:	Store as supplied at -20°C for up to 1 year from the date of purchase. Solutions in DMSO or water may be stored at -20°C for up to 3 months.

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