

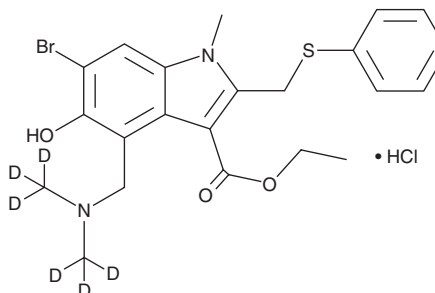
# PRODUCT INFORMATION



## Umifenovir-d<sub>6</sub> (hydrochloride)

Item No. 31494

**CAS Registry No.:** 2928218-29-3  
**Formal Name:** 6-bromo-4-[[[(dimethyl-d<sub>3</sub>)amino]methyl]-5-hydroxy-1-methyl-2-[(phenylthio)methyl]-1H-indole-3-carboxylic acid, ethyl ester, monohydrochloride  
**MF:** C<sub>22</sub>H<sub>19</sub>D<sub>6</sub>BrN<sub>2</sub>O<sub>3</sub>S • HCl  
**FW:** 519.9  
**Chemical Purity:** ≥98% (Umifenovir)  
**Deuterium Incorporation:** ≥99% deuterated forms (d<sub>1</sub>-d<sub>6</sub>); ≤1% d<sub>0</sub>  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:** ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

Umifenovir-d<sub>6</sub> (hydrochloride) is intended for use as an internal standard for the quantification of umifenovir (Item No. 16933) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

Umifenovir-d<sub>6</sub> (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the umifenovir-d<sub>6</sub> (hydrochloride) in the solvent of choice, which should be purged with an inert gas. Umifenovir-d<sub>6</sub> (hydrochloride) is slightly soluble in chloroform and methanol.

### Description

Umifenovir is a broad-spectrum antiviral agent.<sup>1</sup> It inhibits the replication of H5N1 influenza (IC<sub>50</sub> = 30 µg/ml) and severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) *in vitro* (IC<sub>50</sub> = 3.537 µM).<sup>1,2</sup> Umifenovir inhibits entry of hepatitis C virus (HCV) pseudoparticles in Huh7 cells (IC<sub>50</sub> = 6 µg/ml) and inhibits Zika virus protein synthesis in Vero cells.<sup>1,3</sup> *In vivo*, umifenovir (45 mg/kg) reduces the formation of influenza-induced lung lesions in ferrets.<sup>4</sup>

### References

1. Boriskin, Y.S., Leneva, I.A., Pécheur, E.I., *et al.* Arbidol: A broad-spectrum antiviral compound that blocks viral fusion. *Curr. Med. Chem.* **15**(10), 997-1005 (2008).
2. Pizzorno, A., Padey, B., Dubois, J., *et al.* *In vitro* evaluation of antiviral activity of single and combined repurposable drugs against SARS-CoV-2. *Antiviral Res.* **181**, 104878 (2020).
3. Fink, S.L., Vojtech, L., Wagoner, J., *et al.* The antiviral drug arbidol inhibits Zika virus. *Sci. Rep.* **8**(1), 8989 (2018).
4. Wang, Y., Ding, Y., Yang, C., *et al.* Inhibition of the infectivity and inflammatory response of influenza virus by Arbidol hydrochloride *in vitro* and *in vivo* (mice and ferret). *Biomed. Pharmacother.* **91**, 393-401 (2017).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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