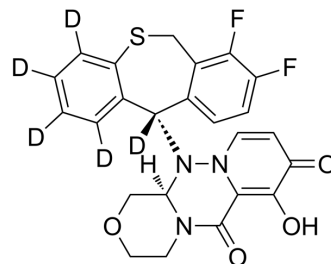


## Baloxavir-d<sub>5</sub>

Cat. No.:	HY-109025AS
Molecular Formula:	C <sub>24</sub> H <sub>14</sub> D <sub>5</sub> F <sub>2</sub> N <sub>3</sub> O <sub>4</sub> S
Molecular Weight:	488.52
Target:	Influenza Virus; Isotope-Labeled Compounds
Pathway:	Anti-infection; Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

#### Description

Baloxavir-d<sub>5</sub> is deuterium labeled Baloxavir. Baloxavir (Baloxavir acid), derived from the proagent Baloxavir marboxil, is a first-in-class, potent and selective cap-dependent endonuclease (CEN) inhibitor within the polymerase PA subunit of influenza A and B viruses. Baloxavir inhibits viral RNA transcription and replication and has potently antiviral activity[1][2].

#### In Vitro

Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs<sup>[1]</sup>.

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### REFERENCES

[1]. Noshi T, et al. In vitro characterization of baloxavir acid, a first-in-class cap-dependent endonuclease inhibitor of the influenza virus polymerase PA subunit. *Antiviral Res.* 2018 Dec;160:109-117.

[2]. Omoto S, et al. Characterization of influenza virus variants induced by treatment with the endonuclease inhibitor baloxavir marboxil. *Sci Rep.* 2018 Jun 25;8(1):9633.

[3]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother.* 2019;53(2):211-216.

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

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