

PRODUCT INFORMATION

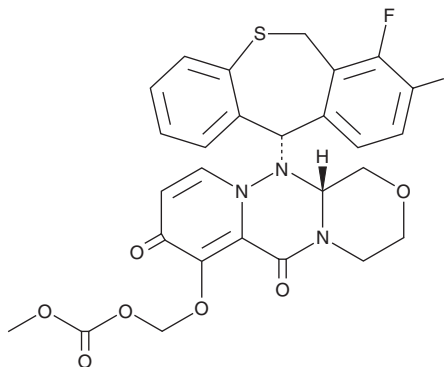


Baloxavir Marboxil

Item No. 33214

CAS Registry No.: 1985606-14-1
Formal Name: [[[12aR)-12-[(11S)-7,8-difluoro-6,11-dihydrodibenzo[b,e]thiepin-11-yl]-3,4,6,8,12,12a-hexahydro-6,8-dioxo-1H-[1,4]oxazino[3,4-c]pyrido[2,1-f][1,2,4]triazin-7-yl]oxy]-carbonic acid, methyl ester

Synonyms: BXM, S-033188
MF: C₂₇H₂₃F₂N₃O₇S
FW: 571.6
Purity: ≥98%
UV/Vis.: λ_{max}: 259 nm
Supplied as: A crystalline 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

Baloxavir marboxil is supplied as a crystalline solid. A stock solution may be made by dissolving the baloxavir marboxil in the solvent of choice, which should be purged with an inert gas. Baloxavir marboxil is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of baloxavir marboxil in these solvents is approximately 1 mg/ml.

Baloxavir marboxil is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, baloxavir marboxil should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Baloxavir marboxil has a solubility of approximately 0.14 mg/ml in a 1:6 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Baloxavir marboxil is a prodrug form of the antiviral and influenza virus cap-dependent endonuclease (CEN) inhibitor baloxavir acid.^{1,2} It inhibits influenza CEN and CEN/RNA-dependent RNA polymerase (CEN/RdRp) activity in cell-free assays (IC₅₀s = 530 and 340 nM, respectively).² Baloxavir marboxil prevents mortality in a mouse model of influenza A and B viral infection when administered at a dose of 5 or 50 mg/kg twice in a single day.¹ It also reduces lung viral titers, body weight loss, and mortality in a mouse model of influenza A and B viral infection when administered 72 hours post-infection at 50 mg/kg. Formulations containing baloxavir marboxil have been used in the early treatment of uncomplicated influenza.

References

1. Fukao, K., Ando, Y., Noshi, T., *et al.* Baloxavir marboxil, a novel cap-dependent endonuclease inhibitor potently suppresses influenza virus replication and represents therapeutic effects in both immunocompetent and immunocompromised mouse models. *PLoS One* **14**(5), e0217307 (2019).
2. Noshi, T., Kitano, M., Taniguchi, K., *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.* **160**, 109-117 (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.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 11/07/2022

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM