

PRODUCT INFORMATION



Rupintrivir

Item No. 41543

CAS Registry No.: 223537-30-2

Formal Name: (2E,4S)-4-[[[(2R,5S)-2-[(4-fluorophenyl)methyl]-6-methyl-5-[[[(5-methyl-3-isoxazolyl)carbonyl]amino]-1,4-dioxoheptyl]amino]-5-[(3S)-2-oxo-3-pyrrolidinyl]-2-pentenoic acid, ethyl ester

Synonyms: AG-7088, Rupinavir

MF: $C_{31}H_{39}FN_4O_7$

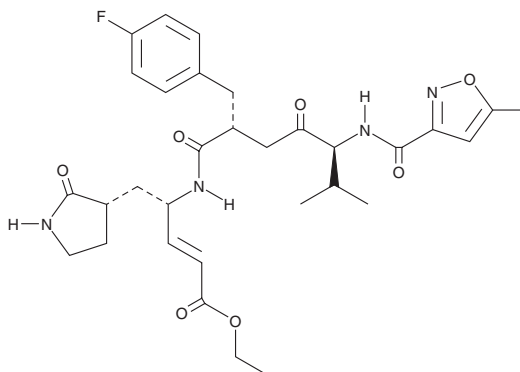
FW: 598.7

Purity: $\geq 98\%$

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

Rupintrivir is supplied as a solid. A stock solution may be made by dissolving the rupintrivir in the solvent of choice, which should be purged with an inert gas. Rupintrivir is sparingly soluble (1-10 mg/ml) in acetonitrile and slightly soluble (0.1-1 mg/ml) in DMSO.

Description

Rupintrivir is an inhibitor of human rhinovirus (HRV) 3C protease.¹ It inhibits HRV 3C protease-induced proteolysis of HRV-14 precursor polypeptides in HRV-14-infected H1HeLa cells when used at a concentration of 2 μM . Rupintrivir inhibits the replication of 49 serotypes of HRV in HRV-infected H1HeLa cells (mean EC_{50} = 0.023 μM). It also inhibits the replication of coxsackievirus 21, coxsackievirus B3, echovirus type 11, and enterovirus 70 in virus-infected MRC-5 cells (EC_{50}s = 0.147, 0.183, 0.014, and 0.007 μM , respectively). Rupintrivir (10 μM) decreases the number of HRV-2 plaque forming units (PFUs) in, and IL-8 and IL-6 secretion by, HRV-2-infected BEAS-2B bronchial epithelial cells.² *In vivo*, rupintrivir (0.1 mg/kg per day) inhibits enterovirus 71-induced limb paralysis and decreases in survival, as well as reduces intestinal, lung, brain stem, and cardiac muscle viral loads, in enterovirus-71-infected neonatal mice.³

References

1. Patick, A.K., Binford, S.L., Brothers, M.A., *et al.* In vitro antiviral activity of AG7088, a potent inhibitor of human rhinovirus 3C protease. *Antimicrob. Agents Chemother.* **43**(10), 2444-2450 (1999).
2. Zalman, L.S., Brothers, M.A., Dragovich, P.S., *et al.* Inhibition of human rhinovirus-induced cytokine production by AG7088, a human rhinovirus 3C protease inhibitor. *Antimicrob. Agents Chemother.* **44**(5), 1236-1241 (2000).
3. Zhang, X., Song, Z., Qin, B., *et al.* Rupintrivir is a promising candidate for treating severe cases of enterovirus-71 infection: Evaluation of antiviral efficacy in a murine infection model. *Antiviral Res.* **97**(3), 264-269 (2013).

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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