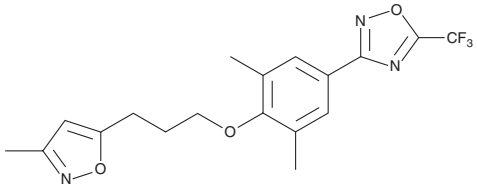
PRODUCT INFORMATION

Pleconaril

Item No. 28461

CAS Registry No.:	153168-05-9
Formal Name:	3-[3,5-dimethyl-4-[3-(3-methyl-5-isoxazolyl)propoxy]phenyl]-5-(trifluoromethyl)-1,2,4-oxadiazole
Synonyms:	VP 63843, Win 63843
MF:	$C_{18}H_{18}F_3N_3O_3$
FW:	381.4
Purity:	≥98%
UV/Vis.:	λ_{max}: 262 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

Pleconaril is supplied as a crystalline solid. A stock solution may be made by dissolving the pleconaril in the solvent of choice, which should be purged with an inert gas. Pleconaril is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of pleconaril in these solvents is approximately 10, 20, and 25 mg/ml, respectively.

Description

Pleconaril is an antipicornaviral agent.[1,2] It inhibits *Picornaviridae* viral replication by binding to a hydrophobic pocket in the major VP1 capsid protein, which prevents uncoating of the viral RNA genome. Pleconaril inhibits replication of the rhinoviruses HRV-A2 and HRV-B14 in HeLa Rh cells (EC_{50}s = 0.1 and 0.3 µM, respectively) and is not cytotoxic to HeLa Rh cells with a 50% cytotoxic concentration (CC_{50}) of greater than 131 µM.[2] It also inhibits replication of enterovirus 71 (EV71) in human rhabdomyosarcoma (RD) cells (EC_{50} = 15 µM) and is not cytotoxic to RD cells (CC_{50} = >131 µM). Pleconaril (80 mg/kg per day) increases survival of EV71-infected mouse pups from 20 to 80%.[3]

References

1. Florea, N.R., Maglio, D., and Nicolau, D.P. Pleconaril, a novel antipicornaviral agent. *Pharmacotherapy* **23(3)**, 339-348 (2003).
2. Bernard, A., Lacroix, C., Cabiddu, M.G., *et al.* Exploration of the anti-enterovirus activity of a series of pleconaril/pirodavir-like compounds. *Antivir. Chem. Chemother.* **24(2)**, 56-61 (2015).
3. Zhang, G., Zhou, F., Gu, B., *et al. In vitro* and *in vivo* evaluation of ribavirin and pleconaril antiviral activity against enterovirus 71 infection. *Arch. Virol.* **157(4),** 669-679 (2012).

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