

PRODUCT INFORMATION



PF-543 (hydrochloride)

Item No. 17034

CAS Registry No.: 1706522-79-3
Formal Name: 1-[[4-[[3-methyl-5-[(phenylsulfonyl)methyl]phenoxy]methyl]phenyl]methyl]-2R-pyrrolidinemethanol, monohydrochloride

MF: C₂₇H₃₁NO₄S • HCl

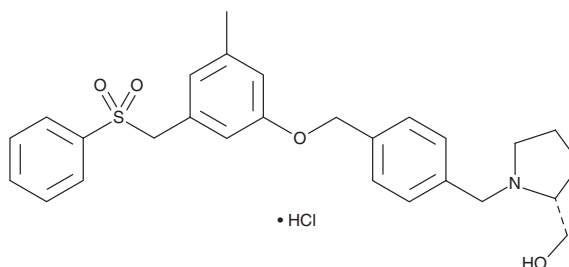
FW: 502.1

Purity: ≥98%

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

PF-543 (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the PF-543 (hydrochloride) in the solvent of choice, which should be purged with an inert gas. PF-543 (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of PF-543 (hydrochloride) in these solvents is approximately 25 mg/ml.

Description

PF-543 is a potent inhibitor of sphingosine kinase 1 (SPHK1; IC₅₀ = 2 nM) that inhibits sphingosine-1-phosphate (S1P) binding to human recombinant SPHK1 (K_i = 3.6 nM).¹ It is selective for SPHK1 over SPHK2 (IC₅₀ = 356 nM) as well as a panel of protein and lipid kinases and S1P receptors at a concentration of 10 μM. PF-543 inhibits the formation of S1P in 1483 cells and human whole blood (EC₅₀s = 8.4 and 26.7 nM, respectively). *In vivo*, PF-543 prevents sickling, hemolysis, and inflammation in a transgenic mouse model of sickle cell disease.²

References

1. Schnute, M.E., McReynolds, M.D., Kasten, T., *et al.* Modulation of cellular S1P levels with a novel, potent and specific inhibitor of sphingosine kinase-1. *Biochem. J.* **444**(1), 79-88 (2012).
2. Zhang, Y., Berka, V., Song, A., *et al.* Elevated sphingosine-1-phosphate promotes sickling and sickle cell disease progression. *J. Clin. Invest.* **124**(6), 2750-2761 (2014).

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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