

## **Data Sheet**

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 Product Name
 :
 PF-543

 Cat. No.
 :
 PC-35528

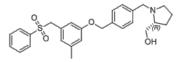
 CAS No.
 :
 1415562-82-1

 Molecular Formula
 :
 C<sub>27</sub>H<sub>31</sub>NO<sub>4</sub>S

 Molecular Weight
 :
 465.608

Target : Sphingosine kinase (SphK)

**Solubility** : 10 mM in DMSO



## **Biological Activity**

PF-543 (PF543) is a potent, specific, cell-permeant inhibitor of **SphK1** with Ki of 3.6 nM, displays >100-fold selectivity over the SphK2 isoform.

PF-543 decreases the level of endogenous S1P 10-fold with a proportional increase in the level of sphingosine in 1483 head and neck carcinoma cells.

PF-543 reduces sickling, hemolysis, and inflammation in SCD Tg mice by reducing erythrocyte SPHK1 activity and S1P levels. PF-543 induces apoptosis, necrosis, and autophagy in human head and neck SCC cells.

## References

Hamada M, et al. *Cell Death Discov.* 2017 Aug 14;3:17047.

Schnute ME, et al. *Biochem J.* 2012 May 15;444(1):79-88.

Zhang Y, et al. *J Clin Invest*. 2014 Jun;124(6):2750-61.

Wang J, et al. ACS Med Chem Lett. 2014 Oct 27;5(12):1329-33.

Caution: Product has not been fully validated for medical applications. Lab Use Only!

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