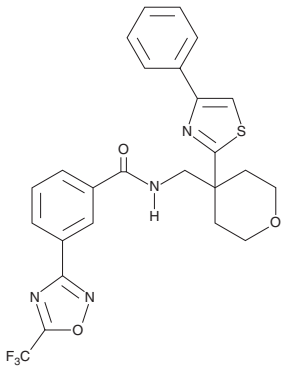
PRODUCT INFORMATION

TMP269

Item No. 17738



CAS Registry No.:	1314890-29-3
Formal Name:	N-[[tetrahydro-4-(4-phenyl-2-thiazolyl)-2H-pyran-4-yl]methyl]-3-[5-(trifluoromethyl)-1,2,4-oxadiazol-3-yl]-benzamide
MF:	$C_{25}H_{21}F_3N_4O_3S$
FW:	514.5
Purity:	≥95%
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

TMP269 is supplied as a crystalline solid. A stock solution may be made by dissolving the TMP269 in the solvent of choice, which should be purged with an inert gas. TMP269 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of TMP269 in these solvents is approximately 0.25, 10 and 25 mg/ml, respectively.

TMP269 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, TMP269 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. TMP269 has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

While class I HDACs are localized predominantly within the nucleus, class II HDACs shuttle into and out of the nucleus in response to intracellular signaling.[1] Class IIa HDACs, which include HDAC4, 5, 7, and 9, commonly act as corepressors and play diverse roles in cell biology.[2] TMP269 is a cell-permeable inhibitor of class IIa HDACs (IC_{50}s = 126, 80, 36, and 19 nM for HDAC4, 5, 7, and 9, respectively).[3] It contains a metal-binding group, trifluoromethyloxadiazole that confers selectivity for class IIa HDACs.[3]

References

1. de Ruijter, A.J., van Gennip, A.H., Caron, H.N., *et al*. Histone deacetylases (HDACs): Characterization of the classical HDAC family. *Biochem. J.* **370(Pt 3)**, 737-749 (2003).
2. Yang, X.-J. and Grégoire, S. Class II histone deacetylases: From sequence to function, regulation, and clinical implication. *Mol. Cell. Biol.* **25(8)**, 2873-2884 (2005).
3. Lobera, M., Madauss, K.P., Pohlhaus, D.T., *et al*. Selective class IIa histone deacetylase inhibition *via* a nonchelating zinc-binding group. *Nat. Chem. Biol.* **9**, 319-325 (2013).

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