

Product Specification Sheet

Product Name: TMP195

Catalog Number: C8619

Technical information:

Chemical Formula: $C_{23}H_{19}F_3N_4O_3$

CAS #: N/A

Molecular Weight: 456.42

Purity: > 98%

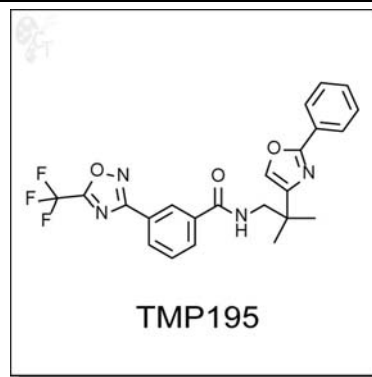
Appearance: White solid

Solubility: Soluble in DMSO up to 50 mM

Chemical Name: N-(2-methyl-2-(2-phenyloxazol-4-yl)propyl)-3-(5-(trifluoromethyl)-1,2,4-oxadiazol-3-yl)benzamide

Storage: Store solid powder at -20°C desiccated; Store DMSO solution at -20°C. Avoid frequent freeze and thaw.

Shelf Life: In the unopened package, powder is stable for 6 months and DMSO solution is stable for 3 months under proper storage condition.



- Handling:**
- To make 10 mM stock solution, add 0.219mL of DMSO for each mg of TMP195.
 - For DMSO solution, briefly spin the vial at 500 rpm in a 50 mL conical tube to ensure maximum sample recovery.

Biological Activity: TMP195 is the most potent and selective class IIa HDAC inhibitor identified to date, with IC50s of 59 nM, 60 nM, 26 nM and 15 nM for HDAC4, HDAC5, HDAC7 and HDAC9 respectively. It has over 100-fold selectivity targeting other HDACs (IC50s>10 μM). TMP195 has an unprecedented zinc-binding group, trifluoromethyloxadiazole (TFMO), which circumvents the selectivity and pharmacologic liabilities of hydroxamates. (1)

TMP195 alters the gene expression of monocytes upon treatment of colony-stimulating factors, while showing no cytotoxicity towards T cell, B cells and monocytes. This tool compound help revealed the unique cellular activities of class IIa HDACs. (1) The discovery of TMP195 and related compounds provides an alternative design for targeting metalloenzymes than the conventional chelating metal-binding group, and suggests a therapeutic potential for class IIa HDAC inhibitors distinct in mechanism and application compared to current HDAC inhibitors (e.g. Trichostatin A, or TSA).

Reference: 1. Lobera M, et al. Selective class IIa histone deacetylase inhibition via a nonchelating zinc-binding group. (2013) Nat Chem Biol. 9(5):319-25. Pubmed ID: 23524983

To reorder: <http://www.cellagentech.com/TMP195/>

For Technical Support: technical@cellagentech.com

Chemicals are sold for research use only, not for clinical or diagnostic use.