



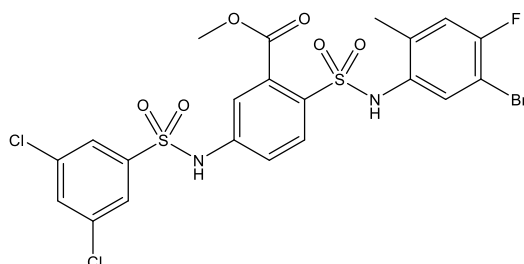
Catalog # 10-4415

MDL-800

CAS# 2275619-53-7

Methyl 2-(N-(5-Bromo-4-fluoro-2-methylphenyl)sulfamoyl)-5-(3,5-dichlorophenylsulfonamido)benzoate

Lot # FBA7133



MDL-800 is an allosteric activator of SIRT6 ($EC_{50} = 10.3 \mu M$).¹ It specifically activates the deacetylase (H3K9ac and H3K56ac) activity of SIRT6 – inactive against SIRT1,3,4 and HDACs 1-11 with 10x less activity against SIRT2,5,7. It inhibited the growth of human hepatocarcinoma cells (HCC) via the tumor suppressor deacetylase (H3K9ac and H3K56ac) via cell-cycle arrest and showed efficacy in a xenograft model of HCC. MDL-800 improved the genetic stability of old-murine-derived iPSCs via activation of NHEJ and BER DNA repair pathways suggesting promise in treating age-related diseases via iPSC-based therapies.² MDL-800 inhibited the proliferation of 12 non-small cell lung carcinoma cell lines with IC_{50} values of 21.5 to 34.5 μM .³ It also enhanced the effects of EGFR kinase inhibitors in Osimertinib-resistant HCC827 and PC9 cells as well as in patient-derived primary tumor cells.³

- 1) Huang *et al.* (2018) *Identification of a cellularly active SIRT6 allosteric activator*; Nat. Chem. Biol. **14** 1118
- 2) Chen *et al.* (2020) *The SIRT6 activator MDL-800 improves genomic stability and pluripotency of old murine-derived iPS cells*; Aging Cell **19** e13185
- 3) Shang *et al.* (2021) *MDL-800, an allosteric activator of SIRT6, suppresses proliferation and enhances EGFR-TKIs therapy in non-small cell lung cancer*; Acta Pharmacol. Sin. **42** 120

PHYSICAL DATA

Molecular Weight: 626.29
Molecular Formula: $C_{21}H_{16}BrCl_2FN_2O_6S_2$
Purity: >98% by HPLC
NMR: (Conforms)
Solubility: DMSO (>10 mg/ml with warming)
Physical Description: White solid
Storage and Stability: Store as supplied at -20°C for up to 1 year from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 1 month.

Materials provided by Focus Biomolecules are for laboratory research use only and are not intended for human or veterinary applications.