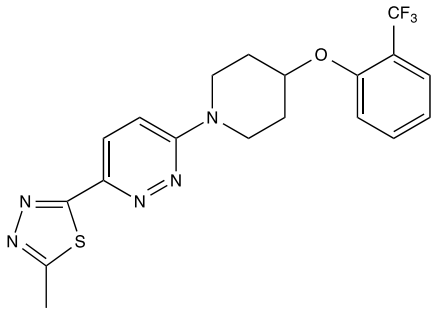
Catalog # 10-4558

MF-438

CAS# 921605-87-0

3-(5-Methyl-1,3,4-thiadiazol-2-yl)-6-{4-[2-(trifluoromethyl)phenoxy]piperidin-1-yl}pyridazine

Lot # FBA3097



MF-438 is a potent inhibitor of stearoyl-CoA desaturase 1 (SCD1) - IC_{50} = 2.3 nM.[1] MF-438 was potent in an *in vivo* mouse liver PD assay (ED_{50} between 1 and 3 mg/kg).[1] Cancer initiating cells (CSC-like) were shown to be much more sensitive to MF-438 inhibition of SCD1 than progenitor and terminally differentiated cancer cells in a lung cancer model.[2] MF-438 showed good oral bioavailability and metabolic stability making it an excellent tool for studying the effects of SCD1 in various disease models.

1) Leger et al., (2010), *Synthesis and biological activity of a potent and orally bioavailable SCD inhibitor (MF-438)*; Bioorg.Med.Chem.Lett. **20** 499
2) Noto *et al*. (2013), *Stearoyl-CoA desaturase-1 is a key factor for lung cancer-initiating cells*; Cell Death and Differ. **4** e947
3) Rodriguez-Perez *et al.* (2017) *Altered fatty acid metabolism and reduced stearoyl coenzyme A desaturate activity in asthma*; Allergy, **72** 1744 [Citation]

PHYSICAL DATA

Molecular Weight:	421.44
Molecular Formula:	$C_{19}H_{18}F_3N_5OS$
Purity:	>98%
	NMR: (Conforms)
Solubility:	Soluble in DMSO (>25 mg/ml).
Physical Description:	Off-white to pale yellow solid
Storage and Stability:	Store as supplied at -20ºC for up to 1 year from the date of purchase. Store solutions in DMSO at -20ºC for up to 1 month. Make solutions in water fresh daily.

Focus Biomolecules LLC 400 Davis Drive, Suite 600 Plymouth Meeting PA 19462

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