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Data Sheet

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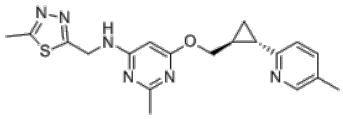

Product Name	:	MK-8189
Cat. No.	:	PC-49494
CAS No.	:	1424371-93-6
Molecular Formula	:	$C_{19}H_{22}N_6OS$
Molecular Weight	:	382.49
Target	:	Phosphodiesterase (PDE)
Solubility	:	10 mM in DMSO

Biological Activity

MK-8189 (MK8189) is a highly potent, selective **PDE10A** inhibitor with Ki of 29 pM, 500,000-fold selectivity over the other PDE enzyme families (PDE1-PDE11).
MK-8189 shows an IC50 of 1.6 nM in cells recombinantly expressing full-length human PDE10A.
MK-8189 has an excellent profile against ion channels (Iks, Cav1.2, and Nav1.5 >30 μM, and functional hERG Ikr IC50=33 μM). One off-target activity was identified in a broad Panlabs panel (somatostatin receptor type 2 (SSTR2) IC50=2.8 μM in a radioligand binding assay).
MK-8189 (0.25 mg/kg, oral) attenuates MK-801-induced locomotor activity in rats.

References

Layton ME, et al. ***J Med Chem.*** 2023 Jan 9. doi: 10.1021/acs.jmedchem.2c01521.

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