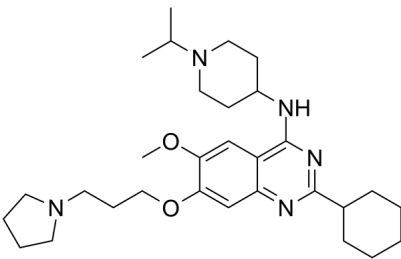


Data Sheet

Product Information

Catalog Number	BP12404
Product Name	UNC0638
Description	UNC0638 is an inhibitor of β -protein lysine methyltransferases G9a(IC ₅₀ <15 nM) and GLP(IC ₅₀ =19 nM) with excellent potency and selectivity over a wide range of epigenetic and non-epigenetic targets.
Targets&IC ₅₀	G9a:<15 nM, GLP:19 nM
In vitro	<p>UNC0638 is a potent, selective and cell-penetrant chemical probe for G9a and GLP, with a toxicity/function ratio of >100, compared to <6 for BIX01294. UNC0638 is a selective inhibitor of G9a and GLP over a wide range of epigenetic and non-epigenetic targets. UNC0638 is more than 10,000-fold selective against SET7/9 (a H3K4 HMTase), SET8 (a H4K20 HMTase), PRMT3, and SUV39H2. In MDA-MB-231 cells, UNC0638 (48 h exposure) reduces H3K9me₂ levels in a concentration-dependent manner with an IC₅₀ of 81 nM. UNC0638 treatment of a variety of cell lines results in lower global H3K9me₂ levels, equivalent to levels observed for small hairpin RNA knockdown of G9a and GLP with the functional potency of UNC0638 being well separated from its toxicity. UNC0638 markedly reduces the clonogenicity of MCF7 cells, reduces the abundance of H3K9me₂ marks at promoters of known G9a-regulated endogenous genes and disproportionately affected several genomic loci encoding microRNAs. In mouse embryonic stem cells, UNC0638 reactivates G9a-silenced genes and a retroviral reporter gene in a concentration-dependent manner without promoting differentiation.</p>
CAS No.	1255580-76-7
Chemical Formula	C ₃₀ H ₄₇ N ₅ O ₂
Molecular Weight	509.739

Solubility	DMSO: 93 mg/mL (182.4 mM) Ethanol: 93 mg/mL (182.4mM); H2O: 6 mg/mL (11.77 mM)
Storage	Powder: -20°C for 2 years In solvent: -80°C for 1 year
Chemical Structure OR Tested Image	

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