LKT Laboratories, Inc.

BIX-01294

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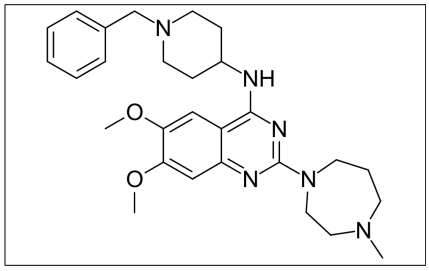
Product Information

Product ID B349921
CAS No. 935693-62-2
Chemical Name N-(1-benzylpiperidin-4-yl)-6,7-dimethoxy-2-(4-methyl-1,4-diazepan-1-yl)quinazolin-4-amine
Synonym BIX01294; CHEMBL569864; Histone Lysine Methyltransferase Inhibitor, HMTase Inhibitor

Formula $C_{28}H_{38}N_6O_2$
Formula Wt. 490.65
Melting Point
Purity ≥99%
Solubility



Bulk quanitites available upon request

Product ID	Size
B349921	5 mg
B349921	25 mg
B349921	100 mg

Store Temp 4°C
Ship Temp Ambient
Description BIX-01294 is a specific inhibitor of histone methyltransferase G9a. When used to treat pulmonary artery smooth muscle cells, BIX-01294 reduces cell proliferation, migration, and contractility, inducing cell cycle arrest in G(1) phase. A study of cloned mouse preimplantation embryos found that treatment with BIX-01294 corrected abnormal epigenetic modifications. Studies with human glioma stem-like cells demonstrated that BIX-01294 treatment results in sensitization of the cells to treatment with temozolomide, which then induces apoptosis. BIX-01294 has also been found to be a potent modulator of stem cell differentiation.

References

Yang Q, Lu Z, Singh D, et al. BIX-01294 treatment blocks cell proliferation, migration, and contractility in ovine foetal pulmonary arterial smooth muscle cells. Cell Prolif. 2012 Aug;45(4):335-344. PMID: 22691107.

Huang Y, Jiang X, Yu M, et al. Beneficial effects of diazepin-quinazolin-amine derivative (BIX-01294) on preimplantation development and molecular characteristics of cloned mouse embryos. Reprod Fertil Dev. 2017 Jun;29(6):1260-1269. PMID: 27477633.

Ciechomska IA, Marciniak MP, Jackl J, et al. Pre-treatment or post-treatment of human glioma cells with BIX01294, the inhibitor of histone methyltransferase G9a, sensitizes cells to temozolomide. Front Pharmacol. 2018 Nov 2;9:1271. PMID: 30450051.

Ciechomska IA, Przanowski P, Jackl J, et al. BIX01294, an inhibitor of histone methyltransferase, induces autophagy-dependent differentiation of glioma stem-like cells. Sci Rep. 2016 Dec 9;6:38723. PMID: 27934912.

Guo AS, Huang YQ, Ma XD, et al. Mechanism of G9a inhibitor BIX-01294 acting on U251 glioma cells. Mol Med Rep. 2016 Nov;14 (5):4613-4621. PMID: 27748874.