BIX-01294



Catalog No: 14072, 14073 Format: 25 mg, 5 mg

Chemical Properties:

$$\begin{split} &\mathsf{MW} = 600.0\\ &\mathsf{C}_{28}\mathsf{H}_{38}\mathsf{N}_6\mathsf{O}_2 \; 3\mathsf{HCI}\\ &\mathsf{CAS}\; 935693\text{-}62\text{-}2\\ &\mathsf{Physical}\; \mathsf{Properties:}\;\; \mathsf{Off}\; \mathsf{white}\; \mathsf{crystalline}\; \mathsf{solid}\\ &\mathsf{Names:}\; \mathsf{BIX}\text{-}01294\; 3\mathsf{HCI},\; 2\text{-}(\mathsf{Hexahydro-4-methyl-1H-1,4-diazepin-1-yl)-6,7-dimethoxy-N-[1-(phenylmethyl)-4-piperidinyl]-4-quinazolinamine}\; \mathsf{trihydrochloride} \end{split}$$

Pharmacology: BIX-01294 is a selective inhibitor of G9a histone methyltransferase ($IC_{50} = 1.7 \mu M$) as well as GLP histone methyltransferase ($IC_{50} = 38 \mu M$) leading to a decrease in histone H3 lysine 9 methylation (H3K9me2) *in vitro* (ref 1). It facilitates the reactivation of pluripotency genes and induces passive demethylation, thus promoting reprogramming (ref 2). BIX-01294, in combination with BAY K8644 (a calcium channel agonist), was found to improve reprogramming efficiencies of Oct4-KIf4-(OK)-infected neural progenitor cells (ref 3). It induced apoptosis and decreased proliferation, mobility and invasion in human neuroblastoma cells (ref 4).

Solubilization: May be dissolved in DMSO (50 mg/ml); Water (50 mg/ml)

Fluorescent Properties: N/A

Quality Control: >98% (TLC); NMR (Conforms)

References:

- 1. S Kubicek *et al. Mol. Cell* 2007, 25:473
- 2. D Huangfu et al. Nat. Biotechnol. 2008, 26:795
- 3. Y Shi et al. Cell Stem Cell 2008, 2:525
- 4. Z Lu et al. Anticancer Drugs 2013, 24:484

Storage and Guarantee: Store desiccated as supplied at room temperature for up to 2 years. Store solutions at -20°C for up to 3 months. This product is guaranteed for 6 months from date of arrival.

