# Data Sheet

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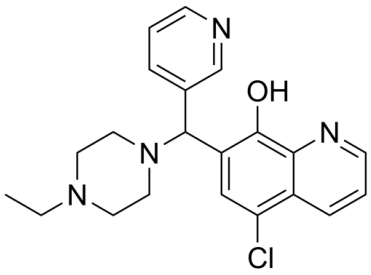
| **Product Name:** | BRD 4354 |
| **Cat. No.:** | CS-0062885 |
| **CAS No.:** | 315698-07-8 |
| **Molecular Formula:** | $C_{21}H_{23}ClN_4O$ |
| **Molecular Weight:** | 382.89 |
| **Target:** | HDAC |
| **Pathway:** | Cell Cycle/DNA Damage; Epigenetics |
| **Solubility:** | DMSO : 12.5 mg/mL (32.65 mM; Need ultrasonic) |




## BIOLOGICAL ACTIVITY:

BRD 4354 is a moderately potent inhibitor of **HDAC5** and **HDAC9**, with **$IC_{50}$s** of 0.85 and 1.88 μM, respectively. IC50 & Target: IC50: 0.85 μM (HDAC5), 1.88 μM (HDAC9)[1]. **In Vitro:** BRD 4354 is a moderately potent inhibitor of HDAC5 and HDAC9, with BRD4354 having half-maximum inhibitory concentrations ($IC_{50}$) of 0.85 μM and 1.88 μM, respectively. BRD 4354 also inhibits HDACs 4, 6, 7, and 8 at higher concentrations (3.88-13.8 μM) but demonstrates less of an inhibitory effect on other class I HDACs 1, 2, and 3 ($IC_{50}$ >40 μM) [1].

## PROTOCOL (Extracted from published papers and Only for reference)

**Cell Assay:** [1]A549 adenocarcinoma cells were treated with **BRD 4354** for 24 h at **10 μM**, and the top 50 upregulated and top 50 down regulated genes are compared to other compound treatments involving drugs, bioactive compounds with established MoA, and novel synthetic compounds[1].

## References:

[1]. Boskovic ZV, ET AL. Inhibition of Zinc-Dependent Histone Deacetylases with a Chemically Triggered Electrophile. ACS Chem Biol. 2016 Jul 15;11(7):1844-51.

## CAIndexNames:

8-Quinolinol, 5-chloro-7-[(4-ethyl-1-piperazinyl)-3-pyridinylmethyl]-

## SMILES:

OC1=C2N=CC=CC2=C(Cl)C=C1C(N3CCN(CC)CC3)C4=CC=CN=C4

**Caution: Product has not been fully validated for medical applications. For research use only.**

Tel: 610-426-3128 Fax: 888-484-5008 E-mail: sales@ChemScene.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA