

# AZ505 (ditrifluoroacetate)

Catalog No: tcsc1734



## Available Sizes

Size: 5mg

Size: 10mg

Size: 25mg

Size: 50mg

Size: 100mg



## Specifications

CAS No:

1035227-44-1

Formula:

$C_{33}H_{40}Cl_2F_6N_4O_8$

Pathway:

Epigenetics

Target:

Histone Methyltransferase

Purity / Grade:

>98%

Observed Molecular Weight:

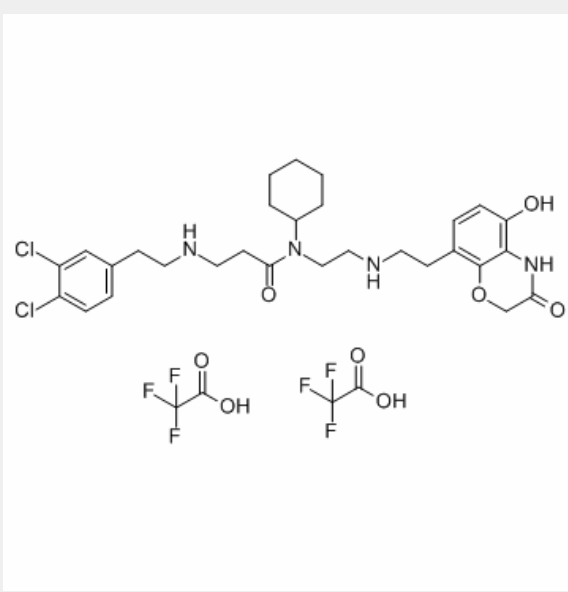
805.59

## Product Description

AZ505 ditrifluoroacetate is a potent and selective **SMYD2** inhibitor with **IC<sub>50</sub>** of 0.12  $\mu$ M.

IC50 & Target: IC50: 0.12  $\mu$ M (SMYD2)<sup>[1]</sup>

**In Vitro:** AZ505 ditrifluoroacetate is highly selective and shows an activity at submicromolar concentrations in vitro. The IC<sub>50</sub> of AZ505 for SMYD2 is 0.12  $\mu$ M, which is >600-fold greater than the IC<sub>50</sub>s of AZ505 for other histone methyltransferases, such as SMYD3 (IC<sub>50</sub>>83.3  $\mu$ M), DOT1L (IC<sub>50</sub>>83.3  $\mu$ M) and EZH2 (IC<sub>50</sub>>83.3  $\mu$ M)<sup>[1]</sup>. AZ505 is a potent and selective SMYD2 inhibitor with an IC<sub>50</sub> of 0.12  $\mu$ M. The human SMYD (SET and MYND domain-containing protein) family of protein lysine methyltransferases contains five members (SMYD1-5). Moreover, AZ505 fails to inhibit the enzymatic activities of a panel of protein lysine methyltransferases. AZ505 is nominated for ITC binding study with K<sub>d</sub> of 0.5  $\mu$ M. In contrast, the calculated K<sub>d</sub> for the p53 substrate peptide is 3.7  $\mu$ M. AZ505 binding to SMYD2 is driven primarily by entropy, which often suggests that binding is mediated by hydrophobic interactions with few specific hydrogen bonds<sup>[2]</sup>.



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!