

DBeQ

Catalog No: tcsc2717



Available Sizes

Size: 5mg

Size: 10mg

Size: 50mg



Specifications

CAS No:

177355-84-9

Formula:

$C_{22}H_{20}N_4$

Pathway:

Cell Cycle/DNA Damage

Target:

p97

Purity / Grade:

>98%

Solubility:

DMSO : ≥ 47 mg/mL (138.06 mM)

Alternative Names:

JRF 12

Observed Molecular Weight:

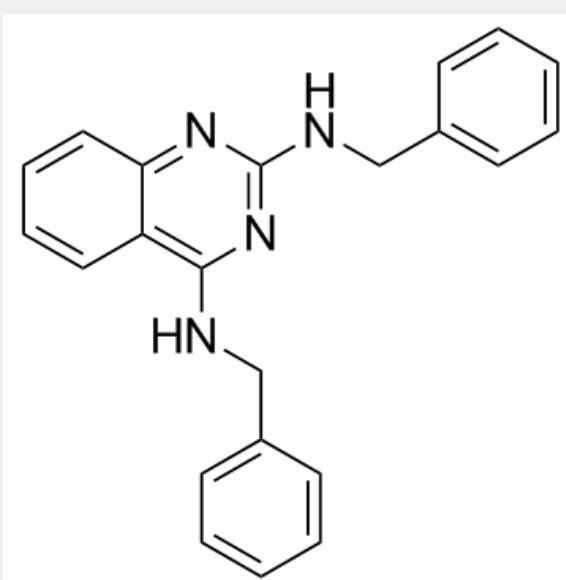
340.42

Product Description

DBeQ is a selective, potent, reversible, and ATP-competitive **p97** inhibitor, with an **IC₅₀** value of 1.5 μ M and 1.6 μ M for p97(wt) and p97(C522A), respectively; DBeQ also inhibits **Vps4** with an **IC₅₀** of 11.5 μ M.

IC50 & Target: IC50: 1.5 μ M (p97)^[1], 11.5 μ M (Vps4)^[2]

In Vitro: DBeQ is a ATP-competitive p97 inhibitor, with an IC₅₀ value of 1.5 μ M and 1.6 μ M for p97(wt) and p97(C522A), respectively. DBeQ inhibits p97 competitively with respect to ATP, with a K_i of 3.2 \pm 0.4 μ M. DBeQ inhibits degradation of the p97-dependent substrate UbG76V-GFP, with IC₅₀ value of 2.6 μ M. DBeQ (10 μ M) also significantly suppresses degradation of TCR α -GFP, induces CHOP but does not increase p21 level. Moreover, DBeQ inhibits the viability of MRC-5, Hek293, HeLa and RPMI8226 cells, with GI₅₀s of 6.6 \pm 2.9, 4 \pm 0.6, 3.1 \pm 0.5 and 1.2 \pm 0.3, respectively^[1]. DBeQ potently inhibits the AAA ATPase p97 by specifically binding to the ATPase site of its D2 domain (p97D2). DBeQ also inhibits Vps4, with an IC₅₀ of 11.5 μ M. Furthermore, DBeQ (30 μ M) inhibits hyphal growth of the wild-type cell (strain YLZ0)^[2].



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