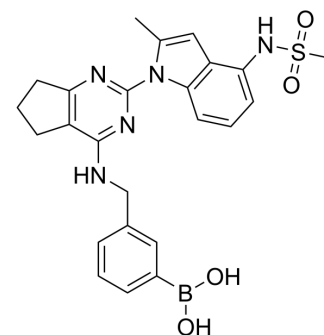


VCP/p97 inhibitor-1

| | |
|--------------------|---|
| Cat. No.: | HY-139606 |
| CAS No.: | 2630950-38-6 |
| Molecular Formula: | C ₂₄ H ₂₆ BN ₅ O ₄ S |
| Molecular Weight: | 491.37 |
| Target: | p97 |
| Pathway: | Cell Cycle/DNA Damage |
| Storage: | Please store the product under the recommended conditions in the Certificate of Analysis. |



BIOLOGICAL ACTIVITY

| | | | | | | | | | |
|-------------------------------------|--|------------|----------------------|----------------|---|------------------|----------|---------|--|
| Description | VCP/p97 inhibitor-1 is a potent inhibitor of VCP/p97 (also called Cdc48, CDC-. 48, or Ter94) with an IC ₅₀ of 54.7 nM. VCP/p97 inhibitor-1 causes the dysregulation of protein homeostasis and disturbs the degradation of misfolded polypeptides by the ubiquitin-proteasome system (UPS) ^{[1][2]} . | | | | | | | | |
| IC₅₀ & Target | 54.7 nM (VCP/p97) ^[1] | | | | | | | | |
| In Vitro | <p>VCP/p97 inhibitor-1 (compound 17) (3-fold serial dilutions with the highest concentration at 10 μM; 72 hours) has anti-proliferation effect with IC₅₀s of 2.9 and 0.86 μM in A549 and RPMI8226 cells, respectively^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Cell Viability Assay^[1]</p> <table border="1"> <tr> <td>Cell Line:</td> <td>A549, RPMI8226 cells</td> </tr> <tr> <td>Concentration:</td> <td>3-fold serial dilutions with the highest concentration at 10 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>72 hours</td> </tr> <tr> <td>Result:</td> <td>Showed anti-proliferative rates in A549 and RPMI8226 cells (IC₅₀= 2.9 and 0.86 μM, respectively).</td> </tr> </table> | Cell Line: | A549, RPMI8226 cells | Concentration: | 3-fold serial dilutions with the highest concentration at 10 μM | Incubation Time: | 72 hours | Result: | Showed anti-proliferative rates in A549 and RPMI8226 cells (IC ₅₀ = 2.9 and 0.86 μM, respectively). |
| Cell Line: | A549, RPMI8226 cells | | | | | | | | |
| Concentration: | 3-fold serial dilutions with the highest concentration at 10 μM | | | | | | | | |
| Incubation Time: | 72 hours | | | | | | | | |
| Result: | Showed anti-proliferative rates in A549 and RPMI8226 cells (IC ₅₀ = 2.9 and 0.86 μM, respectively). | | | | | | | | |

REFERENCES

[1]. Zhang Y, et al. Discovery of novel pyrimidine molecules containing boronic acid as VCP/p97 Inhibitors. *Bioorg Med Chem.* 2021;38:116114.

[2]. van den Boom J, et al. VCP/p97-Mediated Unfolding as a Principle in Protein Homeostasis and Signaling. *Mol Cell.* 2018;69(2):182-194.

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

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