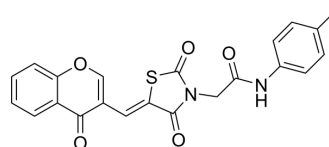


PTP1B-IN-24

Cat. No.:	HY-161321
CAS No.:	2221707-61-3
Molecular Formula:	C ₂₂ H ₁₆ N ₂ O ₅ S
Molecular Weight:	420.44
Target:	Phosphatase; Insulin Receptor; Akt
Pathway:	Metabolic Enzyme/Protease; Protein Tyrosine Kinase/RTK; PI3K/Akt/mTOR
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	PTP1B-IN-24 (Compound 9) is a reversible PTP1B inhibitor with an IC ₅₀ value of 1.4 μM, and PTP1B-IN-24 can enhance the thermal stability of PTP1B. PTP1B-IN-24 can restore PA- (HY-N0830) induced insulin resistance by increasing the phosphorylation levels of IRS1 and AKT ^[1] .									
IC₅₀ & Target	Akt 1.4 μM (IC ₅₀)									
In Vitro	<p>PTP1B-IN-24 (0-32 μM; 24 h) doesn't affect cell viability in LO2 cells. PTP1B-IN-24 (1-2 μM; 24 h) improves PA (0.4 mM; 24 h)-induced insulin resistance in HepG2 cells^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Western Blot Analysis^[1]</p> <table border="1"> <tr> <td>Cell Line:</td> <td>HepG2</td> </tr> <tr> <td>Concentration:</td> <td>1 μM; 2 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>24 h</td> </tr> <tr> <td>Result:</td> <td>Enhanced the phosphorylated expression of IRS1 (Y632) and Akt (S473).</td> </tr> </table>		Cell Line:	HepG2	Concentration:	1 μM; 2 μM	Incubation Time:	24 h	Result:	Enhanced the phosphorylated expression of IRS1 (Y632) and Akt (S473).
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Concentration:	1 μM; 2 μM									
Incubation Time:	24 h									
Result:	Enhanced the phosphorylated expression of IRS1 (Y632) and Akt (S473).									

REFERENCES

[1]. Zheng Y, et al. New chromone derivatives bearing thiazolidine-2,4-dione moiety as potent PTP1B inhibitors: Synthesis and biological activity evaluation. *Bioorg Chem.* 2024 Feb;143:106985.

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

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