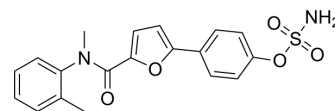


Steroid sulfatase/17β-HSD1-IN-1

Cat. No.:	HY-151199
Molecular Formula:	C ₁₉ H ₁₈ N ₂ O ₅ S
Molecular Weight:	386.42
Target:	Steroid Sulfatase
Pathway:	Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Steroid sulfatase/17β-HSD1-IN-1 is a potent steroid sulfatase and 17β-hydroxysteroid dehydrogenase type 1 (17β-HSD1) inhibitor with an IC ₅₀ value of 28 nM for cellular human steroid sulfatase. Steroid sulfatase/17β-HSD1-IN-1 can be used to research estrogen-dependent diseases ^[1] .																
IC₅₀ & Target	IC ₅₀ : 28 nM (cellular human steroid sulfatase) ^[1]																
In Vitro	<p>Steroid sulfatase/17β-HSD1-IN-1 (compound 13) (20 μM; 48 h) has a low cytotoxicity in HEK-293 cells^[1]. Steroid sulfatase/17β-HSD1-IN-1 (50-750 nM; 0-25 min) can inhibit T47D cells growth and 17β-HSD1 in a time-dependent manner^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Cell Cytotoxicity Assay^[1]</p> <table border="1"> <tr> <td>Cell Line:</td> <td>HEK-293 cells</td> </tr> <tr> <td>Concentration:</td> <td>20 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>48 h</td> </tr> <tr> <td>Result:</td> <td>Exhibited a low cytotoxicity with the cell growth inhibition of 12.8%.</td> </tr> </table> <p>Cell Proliferation Assay^[1]</p> <table border="1"> <tr> <td>Cell Line:</td> <td>T47D</td> </tr> <tr> <td>Concentration:</td> <td>50, 100, 250, 500 and 750 nM</td> </tr> <tr> <td>Incubation Time:</td> <td>0-25 min</td> </tr> <tr> <td>Result:</td> <td>Inhibited cell growth and 17β-HSD1 in a time-dependent manner.</td> </tr> </table>	Cell Line:	HEK-293 cells	Concentration:	20 μM	Incubation Time:	48 h	Result:	Exhibited a low cytotoxicity with the cell growth inhibition of 12.8%.	Cell Line:	T47D	Concentration:	50, 100, 250, 500 and 750 nM	Incubation Time:	0-25 min	Result:	Inhibited cell growth and 17β-HSD1 in a time-dependent manner.
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In Vivo	<p>Steroid sulfatase/17β-HSD1-IN-1 shows good metabolic stability in human hepatic S9 fraction (t_{1/2}=47 min) and low intrinsic clearance Clint (15 μL/min/mg protein)^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>																

REFERENCES

[1]. Mohamed A, et al. Dual Targeting of Steroid Sulfatase and 17 β -Hydroxysteroid Dehydrogenase Type 1 by a Novel Drug-Prodrug Approach: A Potential Therapeutic Option for the Treatment of Endometriosis. J Med Chem. 2022 Aug 22.

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

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