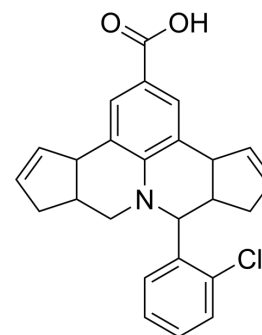


UC-857993

Cat. No.:	HY-124514
CAS No.:	487001-04-7
Molecular Formula:	C ₂₅ H ₂₂ ClNO ₂
Molecular Weight:	403.9
Target:	Ras; ERK
Pathway:	GPCR/G Protein; MAPK/ERK Pathway; Stem Cell/Wnt
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	UC-857993 is a selective SOS1-Ras inhibitor ($K_d=14.7 \mu\text{M}$, His ₆ -SOS1 _{cat}), suppressing catalytic activity. UC-857993 also inhibits ERK and Ras activation, suppresses the growth of mouse embryonic fibroblasts (MEFs) ^[1] .																
In Vitro	<p>UC-857993 (0-80 μM; 3 d) specifically inhibits the growth of wild-type MEFs, but did not inhibit the growth of carcinogenic H-Ras(G12V) expressing MEF^[1].</p> <p>UC-857993 (60 μM, 80 μM; 2 h) dose-dependently inhibits Ras activation and downstream ERK activation mediated through EGFR-SOS1-Ras-Raf1-MEK-ERK signaling^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Cell Proliferation Assay^[1]</p> <table border="1"> <tr> <td>Cell Line:</td> <td>Mouse embryonic fibroblasts</td> </tr> <tr> <td>Concentration:</td> <td>0, 40, 60, and 80 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>3 days</td> </tr> <tr> <td>Result:</td> <td>Selectively inhibited the growth of mouse fibroblasts, as exerting inhibition against wild-type mouse embryonic fibroblasts but not mouse embryonic fibroblasts expressing carcinogenic H-Ras(G12V).</td> </tr> </table> <p>Western Blot Analysis^[1]</p> <table border="1"> <tr> <td>Cell Line:</td> <td>NIH/3T3 cells</td> </tr> <tr> <td>Concentration:</td> <td>60 μM, 80 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>2 hours; stimulated with 50 ng/ml EGF for 5 min</td> </tr> <tr> <td>Result:</td> <td>Inhibited EGF-induced the increase of the level of p-ERK and Ras-GTP.</td> </tr> </table>	Cell Line:	Mouse embryonic fibroblasts	Concentration:	0, 40, 60, and 80 μM	Incubation Time:	3 days	Result:	Selectively inhibited the growth of mouse fibroblasts, as exerting inhibition against wild-type mouse embryonic fibroblasts but not mouse embryonic fibroblasts expressing carcinogenic H-Ras(G12V).	Cell Line:	NIH/3T3 cells	Concentration:	60 μM , 80 μM	Incubation Time:	2 hours; stimulated with 50 ng/ml EGF for 5 min	Result:	Inhibited EGF-induced the increase of the level of p-ERK and Ras-GTP.
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REFERENCES

[1]. Evelyn CR, et al. Combined rational design and a high throughput screening platform for identifying chemical inhibitors of a Ras-activating enzyme. J Biol Chem. 2015

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

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