



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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### Lieferung & Zahlungsart

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### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

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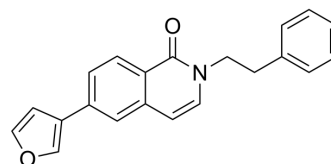
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## Anti-inflammatory agent 79

Cat. No.:	HY-163512
Molecular Formula:	C <sub>21</sub> H <sub>17</sub> NO <sub>2</sub>
Molecular Weight:	315.37
Target:	HIF/HIF Prolyl-Hydroxylase
Pathway:	Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Anti-inflammatory agent 79 (compound 17q) is an isoquinolinone derivative-based HIF-1 inhibitor (IC <sub>50</sub> : 0.55 μM), which can effectively block HIF-1 signals and increase HIF- Degradation of 1α. Anti-inflammatory agent 79 inhibits synovial invasion and migration and inhibits angiogenesis. Anti-inflammatory agent 79 also effectively reduced foot swelling and arthritis in a mouse inflammation model, and down-regulated the levels of inflammatory factors and blood vessel proliferation in the body. <sup>[13][1]</sup>								
<b>IC<sub>50</sub> &amp; Target</b>	HIF-1α .55 μM (IC <sub>50</sub> , [1])								
<b>In Vitro</b>	<p>Anti-inflammatory agent 79 (2.5-10 μM; 24 h) can concentration-dependently block hypoxia-induced HIF-1α protein accumulation, reduce inflammatory response, inhibit cell invasiveness and promote VHL-dependent HIF-1α degradation in human RA synovial cell lines<sup>[1]</sup>.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Western Blot Analysis<sup>[1]</sup></p> <table border="1"> <tr> <td>Cell Line:</td> <td>MH7A cells</td> </tr> <tr> <td>Concentration:</td> <td>2.5 μM, 5 μM, 10 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>24 h</td> </tr> <tr> <td>Result:</td> <td>Decreased the protein level of HIF-1α Decreased the secretion of cytokines, including IL-1β, IL-6 and TNF-α.</td> </tr> </table>	Cell Line:	MH7A cells	Concentration:	2.5 μM, 5 μM, 10 μM	Incubation Time:	24 h	Result:	Decreased the protein level of HIF-1α Decreased the secretion of cytokines, including IL-1β, IL-6 and TNF-α.
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<b>In Vivo</b>	<p>Anti-inflammatory agent 79 (30 mg/kg, 60 mg/kg; ip; once every 2 days for 16 days) improved pathological damage to the ankle joint and reduced vascularity in a rat model of adjuvant-induced arthritis (AIA) Generate and weaken inflammatory response<sup>[1]</sup>.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <table border="1"> <tr> <td>Animal Model:</td> <td>Adjuvant-induced arthritic (AIA) model in SD rats<sup>[1]</sup></td> </tr> <tr> <td>Dosage:</td> <td>30 mg/kg, 60 mg/kg</td> </tr> </table>	Animal Model:	Adjuvant-induced arthritic (AIA) model in SD rats <sup>[1]</sup>	Dosage:	30 mg/kg, 60 mg/kg				
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Administration:	ip; once per two days; from 13 to 29 days after CFA injection (vehicle: 5 % ethanol and 5 % cremophor EL in FBS)
Result:	Attenuated the development and severity of arthritis Significantly decreased the HIF-1 $\alpha$ expression and the percentage of HIF-1 $\alpha$ positive cells.

## REFERENCES

[1]. Cai L, et al. Discovery of novel diaryl substituted isoquinolin-1(2H)-one derivatives as hypoxia-inducible factor-1 signaling inhibitors for the treatment of rheumatoid arthritis. Eur J Med Chem. 2024 Apr 16;271:116417.

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

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