



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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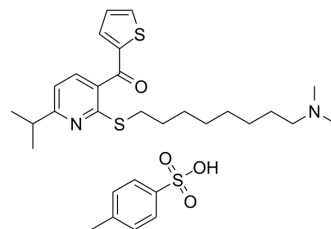
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## Y-29794 tosylate

Cat. No.:	HY-15113A
CAS No.:	143984-17-2
Molecular Formula:	C <sub>30</sub> H <sub>42</sub> N <sub>2</sub> O <sub>4</sub> S <sub>3</sub>
Molecular Weight:	590.86
Target:	Prolyl Endopeptidase (PREP)
Pathway:	Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Y-29794 tosylate is a selective, orally active inhibitor for non-peptide prolyl endopeptidase (PREP), with an IC <sub>50</sub> of 3 nM and a K <sub>i</sub> of 0.95 nM. Y-29794 tosylate enhances the effect of thyrotropin-releasing hormone (TRH) on the release of ACh in the rat hippocampus, exhibits potential neuroprotective efficacy. Y-29794 tosylate exhibits anticancer activity through inhibition of the IRS1-AKT-mTORC1 pathway. Y-29794 tosylate penetrates the brain-blood barrier (BBB) <sup>[1][2]</sup> .																
<b>IC<sub>50</sub> &amp; Target</b>	PREP 3 nM (IC <sub>50</sub> )																
<b>In Vitro</b>	<p>Y-29794 tosylate inhibits proliferations of TNBC cancer cells BT20, BT549, MDA453, DU4475, MDA 231, MDA468 and SUM159PT (0-10 μM, 4 days), arrest cell cycle at G1/sub G1 pahse (0-10 μM, 48 h), induces cell death (5-10 mM)<sup>[1]</sup>. MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Cell Proliferation Assay<sup>[1]</sup></p> <table border="1"> <tr> <td>Cell Line:</td> <td>TNBC, BT20, BT549, MDA453, DU4475, MDA 231, MDA468, SUM159PT</td> </tr> <tr> <td>Concentration:</td> <td>0-10 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>4 days</td> </tr> <tr> <td>Result:</td> <td>Inhibited cell proliferation, induced cell death.</td> </tr> </table> <p>Cell Cycle Analysis<sup>[1]</sup></p> <table border="1"> <tr> <td>Cell Line:</td> <td>MDA231, MDA468</td> </tr> <tr> <td>Concentration:</td> <td>0-10 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>48 h</td> </tr> <tr> <td>Result:</td> <td>Arrested cell cycle at G1 phase at 0-5 μM, arrested cell cycle at sub G1 phase at 5-10 μM.</td> </tr> </table>	Cell Line:	TNBC, BT20, BT549, MDA453, DU4475, MDA 231, MDA468, SUM159PT	Concentration:	0-10 μM	Incubation Time:	4 days	Result:	Inhibited cell proliferation, induced cell death.	Cell Line:	MDA231, MDA468	Concentration:	0-10 μM	Incubation Time:	48 h	Result:	Arrested cell cycle at G1 phase at 0-5 μM, arrested cell cycle at sub G1 phase at 5-10 μM.
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<b>In Vivo</b>	Y-29794 tosylate (12.5-50 mg/kg, i.p. daily, 5 times a week for 5 weeks) exhibits antitumor efficacy against triple-negative breast cancer in NOD-SCID mice models, without significant toxicity <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.																

Animal Model:	TNBC xenograft NOD-SCID mice model <sup>[1]</sup>
Dosage:	12.5-50 mg/kg
Administration:	i.p., daily, 5 times a week for 5 weeks
Result:	Inhibited tumor growth, maintained body weight.

## REFERENCES

[1]. Perez RE, et al. Prolyl endopeptidase inhibitor Y-29794 blocks the IRS1-AKT-mTORC1 pathway and inhibits survival and in vivo tumor growth of triple-negative breast cancer. *Cancer Biol Ther.* 2020 Nov 1;21(11):1033-1040.

[2]. Nakajima T, et al. Y-29794--a non-peptide prolyl endopeptidase inhibitor that can penetrate into the brain. *Neurosci Lett.* 1992 Jul 20;141(2):156-60.

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

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