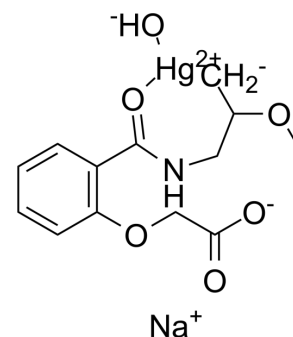


## Mersalyl

<b>Cat. No.:</b>	HY-108868
<b>CAS No.:</b>	492-18-2
<b>Molecular Formula:</b>	C <sub>13</sub> H <sub>16</sub> HgNNaO <sub>6</sub>
<b>Molecular Weight:</b>	505.85
<b>Target:</b>	HIF/HIF Prolyl-Hydroxylase; VEGFR
<b>Pathway:</b>	Metabolic Enzyme/Protease; Protein Tyrosine Kinase/RTK
<b>Storage:</b>	-20°C, protect from light, stored under nitrogen * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light, stored under nitrogen)



### BIOLOGICAL ACTIVITY

<b>Description</b>	Mersalyl (Salirgan) is a potent vascular endothelial growth factor (VEGF) and hypoxia-inducible factor 1 (HIF-1) inducer. Mersalyl induces VEGF and ENO1 mRNA expression. Mersalyl shows diuresis effects <sup>[1][2][3]</sup> .								
<b>In Vitro</b>	<p>Mersalyl (100 μM) induces VEGF and ENO1 mRNA expression but inhibits EPO mRNA expression induced by hypoxia, DFO, or CoCl<sub>2</sub><sup>[2]</sup>.</p> <p>Mersalyl (20 μM; 5 min) is a cell-impermeant organomercurial compound that reacts with free thiol groups in mitochondrial membrane protein<sup>[1]</sup>.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>RT-PCR<sup>[2]</sup></p> <table border="1"> <tr> <td>Cell Line:</td> <td>Hep3B cells</td> </tr> <tr> <td>Concentration:</td> <td>100 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>6 h</td> </tr> <tr> <td>Result:</td> <td>Induced VEGF and ENO1 mRNA expression but inhibited EPO mRNA expression induced by hypoxia, DFO, or CoCl<sub>2</sub>.</td> </tr> </table>	Cell Line:	Hep3B cells	Concentration:	100 μM	Incubation Time:	6 h	Result:	Induced VEGF and ENO1 mRNA expression but inhibited EPO mRNA expression induced by hypoxia, DFO, or CoCl <sub>2</sub> .
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<b>In Vivo</b>	<p>Mersalyl (2.5-40 mg/kg; intramuscularly injection) shows diuresis effects in Rats<sup>[3]</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>Rats<sup>[3]</sup></td> </tr> <tr> <td>Dosage:</td> <td>2.5-40 mg/kg</td> </tr> <tr> <td>Administration:</td> <td>Intramuscularly injection</td> </tr> <tr> <td>Result:</td> <td>Significantly depressed in sulfhydryl concentration at 5 mg/kg.</td> </tr> </table>	Animal Model:	Rats <sup>[3]</sup>	Dosage:	2.5-40 mg/kg	Administration:	Intramuscularly injection	Result:	Significantly depressed in sulfhydryl concentration at 5 mg/kg.
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### REFERENCES

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[1]. Kowaltowski AJ, et al. Mitochondrial membrane protein thiol reactivity with N-ethylmaleimide or mersalyl is modified by Ca<sup>2+</sup>: correlation with mitochondrial permeability transition. *Biochim Biophys Acta*. 1997 Feb 15;1318(3):395-402.

[2]. Agani F, et al. Mersalyl is a novel inducer of vascular endothelial growth factor gene expression and hypoxia-inducible factor 1 activity. *Mol Pharmacol*. 1998 Nov;54(5):749-54.

[3]. FARAH A, et al. Histochemical studies on the site of action of mercurial diuretics. *J Histochem Cytochem*. 1955 Jul;3(4):271-3.

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

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