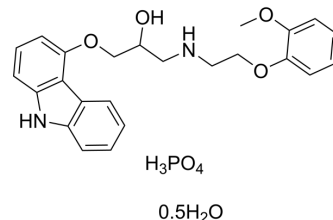


## Carvedilol phosphate hemihydrate

<b>Cat. No.:</b>	HY-B0006A
<b>CAS No.:</b>	610309-89-2
<b>Molecular Formula:</b>	$C_{24}H_{26}N_2O_4 \cdot H_3PO_4 \cdot 1/2H_2O$
<b>Molecular Weight:</b>	513.48
<b>Target:</b>	Adrenergic Receptor; Autophagy; Bacterial
<b>Pathway:</b>	GPCR/G Protein; Neuronal Signaling; Autophagy; Anti-infection
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Carvedilol phosphate hemihydrate (BM 14190 phosphate hemihydrate) is a non-selective $\beta/\alpha$ -1 blocker <sup>[1]</sup> . Carvedilol phosphate hemihydrate inhibits lipid peroxidation with an $IC_{50}$ of 5 $\mu$ M. Carvedilol phosphate hemihydrate is a multiple action antihypertensive agent with potential use in angina and congestive heart failure <sup>[2]</sup> . Carvedilol phosphate hemihydrate is an autophagy inducer that inhibits the NLRP3 inflammasome <sup>[3]</sup> .
<b><math>IC_{50}</math> &amp; Target</b>	$\beta/\alpha$ -1 adrenergic receptor <sup>[1]</sup> $IC_{50}$ : 5 $\mu$ M (lipid peroxidation) <sup>[2]</sup> Autophagy <sup>[3]</sup>
<b>In Vitro</b>	Superoxide generation by activated human neutrophils in vitro is inhibited by Carvedilol with an $IC_{50}$ of 28 $\mu$ M. Carvedilol is shown to scavenge oxygen free radicals in a cell-free system with an $IC_{50}$ of 25 $\mu$ M <sup>[2]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### CUSTOMER VALIDATION

- Cell Rep. 2023 Mar 20;42(3):112275.
- Free Radic Biol Med. 2023 Aug, 139, 108897.
- J Pathol. 2023 Feb 24.
- Cells. 2022, 11(17), 2633.
- ACS Omega. August 8, 2022.

See more customer validations on [www.MedChemExpress.com](http://www.MedChemExpress.com)

### REFERENCES

[1]. Eggertsen R, et al. Acute haemodynamic effects of carvedilol (BM 14190), a new combined beta-adrenoceptor blocker and precapillary vasodilating agent, in hypertensive patients. Eur J Clin Pharmacol. 1984;27(1):19-22.

[2]. Feuerstein GZ, et al. Myocardial protection by the novel vasodilating beta-blocker, carvedilol: potential relevance of anti-oxidant activity. J Hypertens Suppl. 1993

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: [tech@MedChemExpress.com](mailto:tech@MedChemExpress.com)

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA