



[www.MedChemExpress.com](http://www.MedChemExpress.com)

Inhibitors, Screening Libraries, Proteins

# Enolase

## Phosphopyruvate hydratase

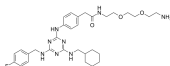
Enolase (phosphopyruvate hydratase) is a metalloenzyme responsible for the catalysis of the conversion of 2-phosphoglycerate (2-PG) to phosphoenolpyruvate (PEP), the ninth and penultimate step of glycolysis. Enolase belongs to the class Lyase. Enolase can also catalyze the reverse reaction, depending on environmental concentrations of substrates. The optimum pH for this enzyme is 6.5. Enolase is present in all tissues and organisms capable of glycolysis or fermentation. Small-molecule inhibitors of enolase have been synthesized as chemical probes of the catalytic mechanism of the enzyme. The most potent of inhibitors is phosphonoacetohydroxamate, which in its unprotonated form has pM affinity for the enzyme. It has structural similarity to the presumed catalytic intermediate, between PEP and 2-PG. Attempts have been made to use this inhibitor as an anti-trypanosome drug, and more recently, as an anti-cancer agent.

## Enolase Inhibitors

### AP-III-a4 (ENOblock)

Cat. No.: HY-15858

ENOblock(AP-III-a4) is a novel small molecule which is the first, nonsubstrate analogue that directly binds to enolase and inhibits its activity (IC<sub>50</sub>=0.576 μM); inhibit cancer cell metastasis in vivo.

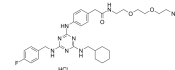


**Purity:** ≥98.0%  
**Clinical Data:** No Development Reported  
**Size:** 1 mg, 5 mg, 10 mg, 25 mg

### AP-III-a4 hydrochloride (ENOblock hydrochloride)

Cat. No.: HY-15858A

AP-III-a4 hydrochloride (ENOblock hydrochloride) is a novel small molecule which is the first, nonsubstrate analogue that directly binds to enolase and inhibits its activity (IC<sub>50</sub>=0.576 μM); inhibit cancer cell metastasis in vivo.

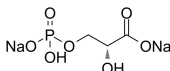


**Purity:** 98.96%  
**Clinical Data:** No Development Reported  
**Size:** 10 mM × 1 mL, 5 mg, 10 mg, 25 mg, 50 mg

### D-(-)-3-Phosphoglyceric acid disodium (3-Phospho-D-glyceric acid disodium)

Cat. No.: HY-141412

D-(-)-3-Phosphoglyceric acid (3-Phospho-D-glyceric acid) disodium is an important intermediate in the enzyme-catalysed process of glycolysis. D-(-)-3-Phosphoglyceric acid disodium competitively inhibits yeast enolase.

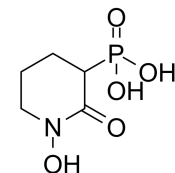


**Purity:** >98%  
**Clinical Data:** No Development Reported  
**Size:** 1 mg, 5 mg

### Hex

Cat. No.: HY-131904A

Hex is an **enolase** inhibitor, with K<sub>i</sub> values of 74.4 nM and 269.4 nM for ENO2 and ENO1, respectively.

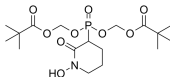


**Purity:** 99.96%  
**Clinical Data:** No Development Reported  
**Size:** 5 mg, 10 mg, 25 mg

### POMHEX

Cat. No.: HY-131904

POMHEX, a racemic mixture and a cell-permeable pivaloyloxymethyl (POM) prodrug of HEX, is a potent, ENO2-specific inhibitor of enolase.



**Purity:** 99.77%  
**Clinical Data:** No Development Reported  
**Size:** 5 mg, 10 mg, 25 mg, 50 mg