

# Enolase

## Phosphopyruvate hydratase


HDAC Inhibitor:  
Vorinostat (SAHA)



HDAC (Histone deacetylase)

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  $\mu\text{M}$  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 & Modulators

<b>AP-III-a4</b> (ENOblock) <span style="float: right;">Cat. No.: HY-15858</span>	<b>AP-III-a4 hydrochloride</b> (ENOblock hydrochloride) <span style="float: right;">Cat. No.: HY-15858A</span>
<p><b>Bioactivity:</b> ENOblock(AP-III-a4) is a novel small molecule which is the first, nonsubstrate analogue that directly binds to enolase and inhibits its activity (IC50=0.576 <math>\mu</math>M); inhibit cancer cell metastasis in vivo.</p> <p><b>Purity:</b> &gt;98%</p> <p><b>Clinical Data:</b> No Development Reported</p> <p><b>Size:</b> 5 mg, 10 mg</p> 	<p><b>Bioactivity:</b> ENOblock Hcl(AP-III-a4 Hcl) is a novel small molecule which is the first, nonsubstrate analogue that directly binds to enolase and inhibits its activity (IC50=0.576 <math>\mu</math>M); inhibit cancer cell metastasis in vivo.</p> <p><b>Purity:</b> 98.0%</p> <p><b>Clinical Data:</b> No Development Reported</p> <p><b>Size:</b> 10mM x 1mL in DMSO, 5 mg, 10 mg, 25 mg, 50 mg</p> 