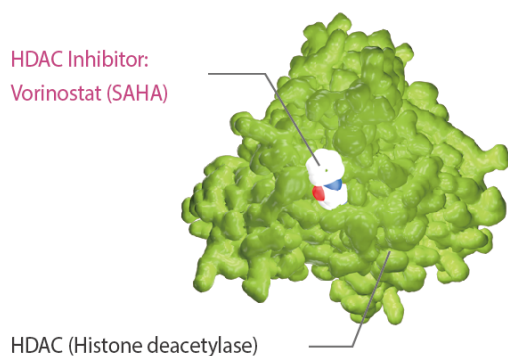


# DYRK




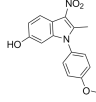


Dual specificity tyrosine phosphorylation regulated kinase; Dual specificity tyrosine regulated kinase



Mammalian DYRKs are a subfamily of mitogen-activated protein kinase-related protein kinases and are originally discovered on the basis of homology to the *Saccharomyces cerevisiae* Yak1 and *Drosophila mini-brain* kinases. DYRKs possess Ser/Thr phosphorylation activity as well as autophosphorylation activity on Tyr residue(s).

Two isoforms of DYRK, DYRK1A and DYRK1B, co-immunoprecipitate with HAN11 when coexpressed in COS cells indicating that the proteins interact in mammalian cells. Co-expression of DYRK1A, DYRK1B, or DYRK2 with a series of glycogen synthase mutants with Ser/Ala substitutions at the phosphorylation sites in COS cells revealed that protein kinases cause phosphorylation of site 3a in glycogen synthase. Control of glycogen synthase by DYRK represents a novel mechanism, and a potentially novel pathway, for the regulation of glycogen synthesis.

## DYRK Inhibitors & Modulators

<p><b>AZ191</b></p> <p style="text-align: right;">Cat. No.: HY-12277</p> <p><b>Bioactivity:</b> AZ191 is a potent inhibitor that selectively inhibits <b>DYRK1B</b> with <b>IC<sub>50</sub></b> of 17 nM [1].</p> <p><b>Purity:</b> 99.63%</p> <p><b>Clinical Data:</b> No Development Reported</p> <p><b>Size:</b> 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg</p> 	<p><b>EHT 5372</b></p> <p style="text-align: right;">Cat. No.: HY-111380</p> <p><b>Bioactivity:</b> EHT 5372 is a strong inhibitor of <b>DYRK's</b> family kinases, with <b>IC<sub>50</sub>s</b> of 0.22, 0.28 nM for DYRK1A and DYRK1B, respectively.</p> <p><b>Purity:</b> &gt;98%</p> <p><b>Clinical Data:</b> No Development Reported</p> <p><b>Size:</b> 250 mg, 500 mg</p> 
<p><b>Harmine</b> (Telepathine)</p> <p style="text-align: right;">Cat. No.: HY-N0737A</p> <p><b>Bioactivity:</b> Harmine is a natural dual-specificity tyrosine phosphorylation-regulated kinase ( <b>DYRK</b>) inhibitor with anticancer and anti-inflammatory activities.</p> <p><b>Purity:</b> 99.78%</p> <p><b>Clinical Data:</b> No Development Reported</p> <p><b>Size:</b> 10mM x 1mL in DMSO, 500 mg</p> 	<p><b>ID-8</b></p> <p style="text-align: right;">Cat. No.: HY-15838</p> <p><b>Bioactivity:</b> ID-8 is a DYRK inhibitor, and sustains embryonic stem cell self-renewal in long-term culture.</p> <p><b>Purity:</b> 99.71%</p> <p><b>Clinical Data:</b> No Development Reported</p> <p><b>Size:</b> 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg</p> 
<p><b>Mirk-IN-1</b> (Dyrk1B/A-IN-1)</p> <p style="text-align: right;">Cat. No.: HY-12838</p> <p><b>Bioactivity:</b> Mirk-IN-1 is a potent inhibitor of Dyrk1B(Mirk kiasne) and Dyrk1A with IC50 of 68±48 nM and 22±8 nM respectively. IC50 value: 68±48/22±8 nM (Dyrk1B/Dyrk1A) [1] Target: Dyrk inhibitor Mirk-IN-1 had an EC50 of 1.9 ±0.2 mmol/L on SW620 cells. At a much higher concentration of 10 mmol/L in a kinase...</p> <p><b>Purity:</b> 99.53%</p> <p><b>Clinical Data:</b> No Development Reported</p> <p><b>Size:</b> 10mM x 1mL in DMSO, 10 mg, 50 mg</p> 	<p><b>Protein kinase inhibitors 1</b></p> <p style="text-align: right;">Cat. No.: HY-U00439</p> <p><b>Bioactivity:</b> Protein kinase inhibitors 1 is a novel inhibitor of <b>HIPK2</b> with an <b>IC<sub>50</sub></b> of 74 nM and <b>K<sub>d</sub></b> of 9.5 nM.</p> <p><b>Purity:</b> 99.0%</p> <p><b>Clinical Data:</b> No Development Reported</p> <p><b>Size:</b> 5 mg, 10 mg, 25 mg</p> 
<p><b>Protein kinase inhibitors 1 hydrochloride</b></p> <p style="text-align: right;">Cat. No.: HY-U00439A</p> <p><b>Bioactivity:</b> Protein kinase inhibitors 1 hydrochloride is a potent <b>HIPK2</b> inhibitor, with <b>IC<sub>50</sub>s</b> of 136 and 74 nM for HIPK1 and HIPK2, and a <b>K<sub>d</sub></b> of 9.5 nM for HIPK2.</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, 100 mg</p> 