NU7026: Potent, selective, cell-permeable DNA-PK (DNA-dependent protein kinase) inhibitor

Prod. Code N1537

ATP-competitive inhibitor of DNA-PK. IC_{50} of 230 nM against DNA-PK purified from HeLa cell nuclear extract vs. IC_{50} of 13 μM and >100 μM for recombinant P3K (phosphoinositide 3-kinase) and ATM (ataxia telangiectasia-mutated) from HeLa cell nuclear extract, respectively.

References

Additional DNA-PK Inhibitor

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Prod. Code</th>
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</thead>
<tbody>
<tr>
<td>4,5-Dimethoxy-6-nitrobenzaldehyde</td>
<td>D9192</td>
</tr>
</tbody>
</table>

TG003: Potent, selective, reversible and ATP-competitive Cdc2-like kinase (Clk) inhibitor

Prod. Code T5575

Displays an IC_{50} of 200 nM and an IC_{50} of between 15-20 nM for recombinant Clk2 and Clk1/ Sty and Clk4, respectively. Inhibits SF2/ASF-dependent splicing of β-globin pre-mRNA in vitro by suppression of Clk-mediated phosphorylation. TG003 also suppresses serine/arginine-rich protein phosphorylation, dissociation of nuclear speckles, and Clk1/ Sty-dependent alternative splicing in mammalian cells. TG003 acts on recombinant Clk1/ Sty competitively with ATP (K_{D} = 3.35 μM) with a K_{i} value of 10 nM. Administration of TG003 rescued the embryonic defects induced by excessive Clk activity in Xenopus. Thus, TG003 may be applicable for the therapeutic manipulation of abnormal splicing.

Reference

Tyrosine Kinase Assay Kit

Prod. Code CS0730

Protein tyrosine kinases (PTKs) comprise a large and diverse multi-gene family. The functions of these enzymes involve regulation of cell to cell signaling associated with growth, differentiation, adhesion, motility and death. Tyrosine kinases play significant roles in the development of many disease states, including diabetes and cancer.

The Tyrosine Kinase Assay Kit assay is based on immunoprecipitation of the tyrosine kinase of interest using a specific anti-tyrosine kinase antibody. Suitable for dot blot analysis.

Size: Sufficient for 50 reactions

Components:
- Monoclonal Anti-Phosphotyrosine-Peroxidase antibody produced in mouse, 1 vial
- Wash buffer 10X, 8 ml
- Assay buffer for tyrosine kinase activity, 1 ml
- EZview™ Red Protein A affinity gel, 1 ml
- Epidermal growth factor receptor, 500 units
- PB1 cellulose phosphate squares, 10 each

L-NASPA: Competitive mammalian lysophosphatidic acid (LPA) receptor agonist

Prod. Code P0247

LPA mimetic; potent reversible antagonist of LPA receptors expressed in Xenopus oocytes [1]. Used to characterize the LPA receptor (Edg-7). In human osteosarcoma MG63 cells, L-NASPA (0.1-10 μM) induced a rapid and transient increase in intracellular Ca^{2+} in a concentration-dependent manner (EC_{50} of 0.5 μM) [2]. In human breast carcinoma MDA MB231 cells, L-NASPA, like LPA, mobilized Ca^{2+} and inhibits activation of adenylyl cyclase, acting as a high potency LPA mimetic [3].

References

Related Product

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Description</th>
<th>Prod. Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lysophosphatidic acid (LPA)</td>
<td>Endogenous LPA_{receptor} agonist</td>
<td>L7260</td>
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