2-Aminopurine
Protein Kinase R (PKR) Inhibitor
Catalog code: tlrl-apr
https://www.invivogen.com/2-aminopurine
For research use only
Version 18E30-MM

PRODUCT INFORMATION
Contents
• 250 mg 2-aminopurine

Storage and stability
- 2-Aminopurine is shipped at room temperature. Store at 4°C. Product is stable for 1 year at 4°C.
- Upon resuspension, prepare aliquots of 2-Aminopurine and store at -20°C. Avoid freeze-thaw cycles. Resuspended product is stable for 3 months at -20°C when properly stored. Product resuspended in formic acid remains clear following freezing, however, product resuspended in PBS:acetic acid will precipitate following freezing and needs to be heated for 10 minutes at 65°C and mixed thoroughly.

Quality control
- Purity: ≥ 97% (UHPLC)
- The absence of bacterial contamination (e.g. lipoproteins and endotoxins) has been confirmed using HEK-Blue™ TLR2 and HEK-Blue™ TLR4 cells.

DESCRIPTION
2-aminopurine (2-AP) is a potent inhibitor of double-stranded RNA (dsRNA)-activated protein kinase R (PKR), a critical mediator of apoptosis. PKR is phosphorylated and activated by dsRNA and poly(I:C) and contributes to the induction of type I interferons, such as IFN-β, which can further increase its expression. PKR plays also a role in TLR-induced antiviral activities as an intermediary in TLR3, TLR4 and TLR9 signaling.


CHEMICAL PROPERTIES
CAS number: 452-06-2
Formula: C₅H₅N₅
Molecular weight: 135.1
Solubility: 25 mg/ml in phosphate-buffered saline:glacial acetic acid (200:1) with heating at 65°C for 15 minutes
Structure:

METHODS
Working concentration: 1-10 mM

PKR inhibition
- Pretreat TLR expressing cells, such as macrophages or HEK293 cells transfected with one or several TLR genes, with 2-aminopurine for 30 min to 1 hr prior to treatment with the appropriate TLR ligand.
- Monitor PKR inhibition by autophosphorylation after immunoprecipitation with an anti-PKR antibody for example.

RELATED PRODUCTS

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<tr>
<th>Product</th>
<th>Description</th>
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<tr>
<td>AG490</td>
<td>JAK family tyrosine kinase inhibitor</td>
<td>tlrl-ag4</td>
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<tr>
<td>BXT95</td>
<td>TBK1/IKKε inhibitor</td>
<td>tlrl-bx7</td>
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<tr>
<td>CYT387</td>
<td>JAK1/JAK2 &amp; TBK1/IKK-ε inhibitor</td>
<td>inh-cy87</td>
</tr>
<tr>
<td>H-89</td>
<td>PKA inhibitor</td>
<td>tlrl-h89</td>
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For a full list of the inflammasome inducers provided by InvivoGen, visit https://www.invivogen.com/inhibitors

TECHNICAL SUPPORT
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