Product Datasheet

NFkB p50 (NLS) Inhibitor Peptide Set
NBP2-29323-5mg

Unit Size: 5 mg
Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.

Publications: 10
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Updated 8/18/2016 v.20.1

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**Product Information**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit Size</td>
<td>5 mg</td>
</tr>
<tr>
<td>Concentration</td>
<td>Lyoph</td>
</tr>
<tr>
<td>Storage</td>
<td>Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.</td>
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<tr>
<td>Reconstitution Instructions</td>
<td>Please contact technical support for detailed reconstitution instructions.</td>
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</table>

**Product Description**

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<tr>
<th>Feature</th>
<th>Details</th>
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<tbody>
<tr>
<td>Gene ID</td>
<td>4790</td>
</tr>
<tr>
<td>Gene Symbol</td>
<td>NFKB1</td>
</tr>
<tr>
<td>Species</td>
<td>Human, Mouse, Rat, Bovine, Canine, Chicken, Xenopus</td>
</tr>
<tr>
<td>Reactivity Notes</td>
<td>Broad: Peptide sequence is 100% conserved across multiple species. Reactivity includes human, mouse, rat, dog, cow, chicken, and xenopus.</td>
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<tr>
<td>Specificity/Sensitivity</td>
<td>The p50 NLS inhibitory peptide also contains a protein transduction (PTD) sequence (DRQIKIWFQNRRMKWKK) derived from antennapedia which renders the peptide cell permeable. The control peptide consists of only the PTD sequence</td>
</tr>
<tr>
<td>Immunogen</td>
<td>Functions as a p50 decoy by blocking the intracellular recognition mechanism of p50 NLS.</td>
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**Preparation Method**

- Preparation of 5 mM Stock Solutions
  - PBS* is added directly to the vials to prepare the stock solutions.
  - Note: Bring the solution to room temperature and quick spin the tubes before opening the caps. p50 (NLS)
  - Inhibitor Peptide: 1 mg of DRQIKIWFQNRRMKWKKVQRKRQKLM
    - Add 57 ul of PBS* to the vial to make a 5 mM stock solution. Mix by vortexing.
    - Aliquot and store at -20C or -80C. Avoid repeated freeze thawing.
  - Control Peptide: 1 mg of DRQIKIWFQNRRMKWKK
    - Add 84.8 ul PBS* to the vial. Mix by vortexing. Aliquot and store at 20C or -80C. Avoid repeated freeze thawing.
  - Recipe for 1X PBS:
    1. Dissolve the following in 800ml distilled H2O.
    - 8g of NaCl
    - 0.2g of KCl
    - 1.44g of Na2HPO4
    - 0.24g of KH2PO4
    2. Adjust pH to 7.5 with HCl.
    3. Adjust volume to 1L with additional distilled H2O.
    4. Sterilize by autoclaving

**Notes**

- The MyD88 Homodimerization inhibitory peptide contains a protein transduction (PTD) sequence (DRQIKIWFQNRRMKWKK) derived from antennapedia which renders the peptide cell permeable (Derossi et al, The third helix of the antennapedia homeodomain translocates through biological membranes. J Biol Chem. 269:10444-10450 (1994) ). The control peptide consists of only the PTD sequence.

**Inhibitor Family**

- NFkB

**Inhibitor Target**

- NFkB p50

**Inhibitor Content**

- NF-kB p50 (NLS) Inhibitor peptide: 2 x 1 mg (lyophilized)
- DRQIKIWFQNRRMKWKKVQRKRQKLM (p50 NLS sequence: VQRKRQKLM). Molecular weight: 3529. Antennapedia Control peptide: 2 x 1 mg (lyophilized)
- DRQIKIWFQNRRMKWKK. Molecular weight: 2361
Product Application Details

<table>
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<tr>
<th>Applications</th>
<th>Functional (Inhibition)</th>
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<tbody>
<tr>
<td>Recommended Dilutions</td>
<td>Functional (Inhibition)</td>
</tr>
<tr>
<td>Application Notes</td>
<td>Inhibition of NF-kB p50(NLS) activity. The inhibitor peptide is designed to block p50 nuclear translocation. Optimal peptide concentrations and incubation times vary between model systems and should be determined empirically by users. A 100 uM final concentration may be a useful starting point. Please refer to Lin et al (1995) for additional information about how the inhibitor peptide has been used to block p50 nuclear translocation. Use in Functional inhibition reported in scientific literature (PMID 24384074)</td>
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</table>

Images

Functional (Inhibition): NFkB p105/p50 Inhibitor Peptide Set [NBP2-29323] - TLR5/NF-kB/SEAPorter HEK 293 (NBP2-26277) cells were plated in 96-well plates at 5 x 10^4 cells/well for 16 h. Cells were preincubated with different concentrations (0, 1, 5, 10, 25 and 50 uM) of Inhibitory Peptide (NBP2-29323) and Control Peptide (NBP2-29334) for 1 h. Cells were then stimulated with 1 ng/ml Flagellin (NBP2-25289) for 24 h. Secreted alkaline phosphatase (SEAP) was analyzed using SEAPorter Assay Kit (NBP2-25285). *p < 0.05 versus control peptide at the corresponding concentrations (Mann-Whitney U test).
## Publications


Details:
Product cited: 1. NF-κB p50 (NLS) Inhibitory Peptide Set (IMG-2004): HVOX human vocal fold fibroblasts cell line, Fig 3A, B. Readout assays measuring ratio of nuclear to cytoplasmic p50 (Fig 3A) and COX-2 transcription (Fig 3B) were used to measure the ef


Details:
1. NF-κB p50 (NLS) Inhibitory Peptide Set (IMG-2004): Fig 4AB.


Details:
Product cited: 1. NF-κB p50 (NLS) Inhibitory Peptide Set (IMG-2004): Primary human alveolar epithelial Type II Cells, Fig 9D. An epithelial permeability to protein assay was used as a readout to measure the effects of the p50 peptide. The p50 peptide was
Procedures

MSDS (NBP2-29323)

Hazard Information
Chemical Name: Non hazardous products
Chemical Formula: N/A
CAS Number: N/A
EEC-No: N/A

Hazard Identification
None

First Aid Measures
Eye Contact: None
Skin Contact: None
Inhalation: None
Ingestion: None

Accidental Release Measures
This product either does not contain hazardous constituents or the concentration of all chemical constituents are below the regulatory threshold limits described by Occupational Safety Health Administration Hazard Communication Standard 29 CFR 1910.1200 and the European Directive 91/155/EEC, 88/379/EEC, and 67/546/EEC.

Handling and Storage
Exposure Controls / Personal Protection
Other Precautions: None

Physical and Chemical Properties
Form: N/A
Color: N/A
Odor: N/A
Melting Point: N/A
Boiling Temperature: N/A
Density: N/A
Vapor Pressure: N/A
Solubility in Water: N/A
Flash Point: N/A
Explosion limits: N/A
Ignition Temperature: N/A
Limitations
This product is for research use only and is not approved for use in humans or in clinical diagnosis. Inhibitors are guaranteed for 1 year from date of receipt.

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