Product Datasheet

RelA/NFkB p65 ELISA Kit
NBP2-29661-1Kit

Unit Size: 1 Kit

Storage is content dependent.

Publications: 48

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www.novusbio.com/NBP2-29661

Updated 2/9/2014 v.20.1
NBP2-29661-1Kit
RelA/NFkB p65 ELISA Kit

**Product Information**

<table>
<thead>
<tr>
<th>Unit Size</th>
<th>1 Kit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concentration</td>
<td>Concentration is not relevant for this product. Please see the protocols for proper use of this product.</td>
</tr>
<tr>
<td>Storage</td>
<td>Storage is content dependent.</td>
</tr>
<tr>
<td>Preservative</td>
<td>0.02% Sodium Azide</td>
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</tbody>
</table>

**Product Description**

<table>
<thead>
<tr>
<th>Gene ID</th>
<th>5970</th>
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<tbody>
<tr>
<td>Gene Symbol</td>
<td>RELA</td>
</tr>
<tr>
<td>Species</td>
<td>Human, Mouse, Rat</td>
</tr>
</tbody>
</table>
| Specificity/Sensitivity | APPROPRIATE CONTROLS TO INCLUDE Following is a list of suggested controls to include with each analysis:
1. No capture antibody added to well
2. No lysate added to well
3. No capture antibody or lysate added to well
4. Positive control: use a cell line or tissue known to constitutively express p65 or a recombinantly expressed p65.
5. Negative control: use a cell line or tissue known to not express p65. |
| Immunogen | For the Detection of Cytoplasmic, Nuclear and Total NF-kB/p65 |
| Kit Components | Capture Antibody 200 ul, Detecting Antibody 200 ul, Coating Buffer 2 x 10 ml, BSA 2 x 0.5 g, AKP-Conjugated Secondary Ab 10 ul, pNPP Substrate Buffer 2 x 10 ml, Recombinant p65 Standard 2 vials lyophilized (0.42 ug/vial), pNPP 4 x 5 mg, ELISA Plates 2, Manual 1, 10X Hypotonic Lysis Buffer 10 ml, 1X Nuclear Extraction Buffer 10 ml, 10% Detergent Solution 10 ml, 10X PBS 2 x 50 ml, 1 M DTT (for Nuclear Extraction from tissue) 100 ul, 10 mM DTT (for Nuclear Lysis Buffer) 500 ul, 100X Protease Inhibitor Cocktail (PIC) 100 ul, 100 mM PMSF 10 ml |
| Notes      | Additional items required for the ELISA (not included NF-kB/p65 ActivELISATM Module): Distilled water 96-well ELISA plate reader |

**Product Application Details**

<table>
<thead>
<tr>
<th>Applications</th>
<th>ELISA, Sandwich ELISA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recommended Dilutions</td>
<td>ELISA, Sandwich ELISA</td>
</tr>
<tr>
<td>Application Notes</td>
<td>Please note that this kit has not yet been tested or used with any of the reporter cell lines and is therefore not guaranteed for detection of the target protein these samples. ADVANTAGES Contains reagents and protocol to prepare whole, nuclear, and cytoplasmic cell fractions. Multiple samples can be analyzed in a low-volume, high-throughput format. Full analysis complete in just hours. Allows direct measurement of changes in p65 translocation. Allows study of NF-kB activation without gel-shift assay. [This product is the same as Imgenex's NF-kappaB p65 ActivELISA Kit, IMK-503]</td>
</tr>
</tbody>
</table>

**Publications**


Onodera T, Kuriyama I, Sakamoto Y et al. 5-O-Acyl plumbagins inhibit DNA polymerase activity and suppress the inflammatory response Arch. Biochem. Biophys. 2015 Mar 03 [PMID: 25748000] (ELISA, Mouse)

Details:
RelA/NFkB p65 ELISA Kit (NF-kb/p65 ActivELISA kit) was used for the measurement of NF-kB nuclear translocation in LPS/24 hour stimulated RAW 264.7 cells which were previously subjected or not to pol lambda knockdown using siRNA transfection. The signal was quantified using Molecular Devices’s Vmax-K microplate reader and results were presented as relative ratio of nuclear to cytoplasmic NF-kB/p65 (Fig. 6D)


Details:
RelA/NFkB p65 ELISA kit used for the qualification of NFkB p65 in nuclear and cytoplasmic fractions (prepared using Nuclear Extraction Kit NBP2-29447 ) from human gingival keratinocytes (NDUSD-1) which were subjected to in-vitro chronic inflammation induced via lipopolysaccharide derived from Escherichia coli O55 followed by treatment or not with anti-inflammatory carotenoid pigment Astaxanthin (Figure 3).


Details:
RelA/NFkB p65 / NF-kb/p65 ActivELISA kit used for measurement of NF-kb p65 in the retina of WT and wolfberry polysaccharides- and PBS-treated rd10 mice by ELISA application (Figure 6C).

ARAI M, TSUJI M, TSUCHIYA H. Protective Effects of Fucoidan Against Interleukin-1b-induced Inflammation in SW982 Human Synovial Cells. The Showa University Journal of Medical Sciences. 2014 Sep 27 (ELISA, Human)

Details:
RelA/NFkB p65 ELISA Kit used for measuring NF-kb-free p65 in the nuclear fractions of SW982 cells (human synovial sarcoma cell line) which were stimulated with IL1 beta for 24 hours with or without 1 hour Fucoidan pre-treatment (Fig 4).


Details:
NFkB p65 ELISA (NF-kb/p65 ActivELISA kit) used for quantification of NF-kb-free p65 in the nuclear fraction of astroglial cells (Rat's astrocytoma cell line C6) which were treated or not with Streptozotocin (STZ) and/or Insulin (Fig. 5A).


Details:
NFkB p65 ELISA kit used for measuring p65 (sub unit of NF-kb) translocation into the nucleus in experiments involving cardiac ischemia reperfusion injury in a transplantation model treated or not with nuclear factor-kB activation inhibitor dehydroxymethylepoxyquinomicin/DHMEQ (Fig. 4)

Details:
NFkB p65 ELISA Kit / NF-kB/p65 ActivELISA kit used for quantification of the activity of transcription factor NF-kB p65 in rats from control or non-alcoholic steatohepatitis (NASH) groups treated or not with Lycium barbarum polysaccharides/LBP (Figure 5F)

## Lakshmi A, Subramanian SP. Tangeretin ameliorates oxidative stress in the renal tissues of rats with experimental breast cancer induced by 7,12-dimethylbenz[a]anthracene Toxicol. Lett. 2014 Sep 02 [PMID: 24995432] (ELISA, Rat)

Details:
NFkB p65 ELISA Kit / NF-kB/p65 ActivELISA-TM kit used for quantification of nuclear levels of free p65 in kidney tissue homogenate of Rats that were subjected to experimental breast cancer induction with 7,12-dimethylbenz[a]anthracene/DMBA followed by treatment with Tangeretin, a citrus polymethoxyflavone (Fig 4).

## Chen SJ, Chuang LT, Chen SN. Incorporation of Eicosatrienoic Acid Exerts Mild Anti-inflammatory Properties in Murine RAW264.7 Cells Inflammation. 2014 Jul 04 [PMID: 24993153] (ELISA, Mouse)

Details:
NFkB p65 ELISA Kit / NF-kB/p65 ActivELISA-TM kit used for detection of cytosolic NF-KB p65 translocation into the nucleus in RAW264.7 cells that were incubated with 50 uM Eicosatrienoic acid (ETrA) or eicosapentaenoic acid (EPA) for 24 followed by stimulatation with LPS 2 ug/ml for 30 min (Fig 7).


Details:
Fig 4A: Hepatic tissue. Results show that NF-kB p65 activation was increased in ischemic mice. However, this effect could be reversed when ischemia mice were treated with huperzine A prior to the ischemia injury.

Procedures

MSDS (NBP2-29661)
Sodium Azide

Hazard Information
Chemical Name: Sodium Azide
Chemical Formula: NaN₃
CAS Number: 26628-22-8
EEC-No 247-852-1

Hazard Identification
Very toxic if swallowed. Contact with acids liberates very toxic gas.

First Aid Measures
- Eye Contact: Irrigate thoroughly with water for at least 15 minutes. Seek medical advice.
- Skin Contact: Wash skin thoroughly with soap and water for at least 15 minutes. Remove contaminated clothing and wash before re-use. In severe cases, obtain medical attention.
- Inhalation: Remove from exposure, rest and keep warm. In severe cases, seek medical advice.
- Ingestion: Wash out mouth thoroughly with water and give plenty of water to drink. Seek medical advice.

Accidental Release Measures
Wear appropriate protective clothing. Inform others to keep a safe distance. Spread soda ash liberally over spillage. If local regulations permit, mop up cautiously with plenty of water and run to waste, diluting greatly with running water. Otherwise transfer to container and arrange removal by disposal company. Wash site of spillage thoroughly with water.

Handling and Storage
- Handling: Avoid prolonged contact with copper or lead, especially in drainage systems or mercury and other heavy metals which may result in the formation of explosive azides. Under no circumstances eat, drink or smoke while handling this material. Wash hands thoroughly after working with this material. Contaminated clothing should be removed and washed before re-use.
- Storage: Store antibody at 4 degrees C, stable for six months.

Exposure Controls / Personal Protection
- Respirator: Dust respirator
- Ventilation: Extraction hood
- Gloves: Rubber or plastic
- Eye Protection: Lab goggles or face shield
- Other Precautions: Plastic apron, sleeves, boots - if handling large quantities.

Physical and Chemical Properties
- Form: Liquid
- Color: Colorless
- Odor: Odorless
- Melting Point: No data available
- Boiling Temperature: No data available
- Density: No data available
- Vapor Pressure: No data available
- Solubility in Water: Very soluble
- Flash Point: No data available
- Explosion limits: No data available
- Ignition Temperature: No data available

Stability and Reactivity
- Stability: Stable unless heated
- Reactivity: Slow reaction at ambient temperature unless water contains dissolved carbon dioxide. Decomposes violently with chromyl chloride. Contact with acids liberates highly toxic gas; forms readily detonable salts with many...
materials, particularly heavy metals.

Toxicological Information
After ingestion, irritation of mucous membranes in the mouth, pharynx, esophagus and gastrointestinal tract. Danger of skin absorption.

Disposal Considerations
Chemical residues are generally classified as special waste, and as such covered by regulations which vary according to location. Contact your local waste disposal authority for advice, or pass to chemical disposal company. Rinse out empty containers thoroughly before disposal.

Other Information
The information contained in this material safety datasheet is believed to be accurate but it is the responsibility of the user to determine the applicability of these data to the formulation of necessary safety precautions. IMGENEX shall not be held responsible for any damage resulting from the use of the above product or the information contained in this material safety data sheet.

PMSF

Hazard Information
Chemical Name: Phenylmethylsulfonyl fluoride
Chemical Formula: C\textsubscript{7}H\textsubscript{7}FO\textsubscript{2}S
CAS Number: 329-98-6

First Aid Measures
Eye Contact: Can cause slight eye irritation.
Skin Contact: Can cause slight skin irritation.
Inhalation: Can cause slight respiratory tract irritation.
Ingestion: Harmful if swallowed.

Accidental Release Measures
If inhaled, move person into fresh air. If not breathing give artificial respiration and consult a physician.
In case of skin contact, wash off with soap and plenty of water.
In case of eye contact, rinse thoroughly with plenty of water for at least 15 minutes.
If swallowed do NOT induce vomiting. Rinse mouth with water and consult a physician.

Handling and Storage
Handling: Avoid contact with skin and eyes. Keep container tightly closed in a cool, dry, well-ventilated place.

Exposure Controls / Personal Protection
Ventilation: Handle in a well-ventilated area
Gloves: Handle with rubber or latex gloves
Eye Protection: Safety glasses, goggles or face shield

Physical and Chemical Properties
Form: Solid
Color: No data available
Odor: No data available
Melting Point: 92 degrees C (197.6 degrees F)
Boiling Temperature: No data available
Density: No data available
Vapor Pressure: No data available
Solubility in Water: soluble
Flash Point: No data available
Explosion limits: No data available
Ignition Temperature: No data available
Stability and Reactivity
Stable under recommended storage conditions.

Disposal Considerations
Absorb spill and place in a container for disposal according to local regulations.

Protease Inhibitor Cocktail

Hazard Information
Chemical Name: 4-((2-Aminoethyl)benzenesulfonyl)fluoride hydrochloride
Chemical Formula: C$_{8}$H$_{10}$FNO$_{2}$S HCl
CAS Number: 30827-99-7

First Aid Measures
Eye Contact: Can cause slight eye irritation.
Skin Contact: Can cause slight skin irritation.
Inhalation: Can cause slight respiratory tract irritation.
Ingestion: Harmful if swallowed.

Accidental Release Measures
If inhaled, move person into fresh air. If not breathing give artificial respiration and consult a physician.
In case of skin contact, wash off with soap and plenty of water.
In case of eye contact, rinse thoroughly with plenty of water for at least 15 minutes.
If swallowed do NOT induce vomiting. Rinse mouth with water and consult a physician.

Handling and Storage
Handling: Avoid contact with skin and eyes. Keep container tightly closed in a cool, dry, well-ventilated place.

Exposure Controls / Personal Protection
Ventilation: Handle in a well-ventilated area
Gloves: Handle with rubber or latex gloves
Eye Protection: Safety glasses, goggles or face shield

Physical and Chemical Properties
Form: Solid
Color: beige
Odor: No data available
Melting Point: 183 degrees C (361 degrees F)
Boiling Temperature: No data available
Density: No data available
Vapor Pressure: No data available
Solubility in Water: soluble
Flash Point: No data available
Explosion limits: No data available
Ignition Temperature: No data available

Stability and Reactivity
Stable under recommended storage conditions.

Disposal Considerations
Absorb spill and place in a container for disposal according to local regulations.

Igepal CA-630 (NP-40)
Hazard Information
Chemical Name: Igepal CA-630
Chemical Formula: \( \text{a-}[1,1,3,3\text{-Tetramethylbutyl} \\text{phenyl}]\text{-w-hydroxy-poly(oxy-1,2-ethanediyl)} \)
CAS Number: 9036-19-5

First Aid Measures
Eye Contact: Can cause eye irritation.
Skin Contact: Causes skin irritation and is toxic if absorbed through skin.
Inhalation: May be harmful if inhaled. Causes respiratory tract irritation.
Ingestion: Harmful if swallowed.

Accidental Release Measures
If inhaled, move person into fresh air. If not breathing give artificial respiration and consult a physician.
In case of skin contact, wash off with soap and plenty of water.
In case of eye contact, rinse thoroughly with plenty of water for at least 15 minutes.
If swallowed do NOT induce vomiting. Rinse mouth with water and consult a physician.

Handling and Storage
Handling: Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Keep container tightly closed in a cool, dry, well-ventilated place.

Exposure Controls / Personal Protection
Ventilation: Handle in a fume hood to avoid vapors
Gloves: Handle with rubber or latex/nitrile gloves
Eye Protection: Safety goggles

Physical and Chemical Properties
Form: Liquid
Color: No data available
Odor: No data available
Melting Point: No data available
Boiling Temperature: No data available
Density: 1.06 g/mL at 25 degrees C (77 degrees F)
Vapor Pressure: No data available
Solubility in Water: Soluble
Flash Point: No data available
Explosion limits: No data available
Ignition Temperature: No data available

Stability and Reactivity
Stable under recommended storage conditions.

Disposal Considerations
Absorb spill and place in a container for disposal according to local regulations.

Dithiothreitol (DTT)

Hazard Information
Chemical Name: Dithiothreitol
Chemical Formula: C4H10O2S2
CAS Number: 3483-12-3

First Aid Measures
Eye Contact: Can cause eye irritation.
Skin Contact: Causes skin irritation and is toxic if absorbed through skin.
Inhalation: May be harmful if inhaled. Causes respiratory tract irritation.
Ingestion: Harmful if swallowed.

Accidental Release Measures
If inhaled, move person into fresh air. If not breathing give artificial respiration and consult a physician.
In case of skin contact, wash off with soap and plenty of water.
In case of eye contact, rinse thoroughly with plenty of water for at least 15 minutes.
If swallowed do NOT induce vomiting. Rinse mouth with water and consult a physician.

Handling and Storage
Handling: Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Keep container tightly closed in a cool, dry, well-ventilated place.

Exposure Controls / Personal Protection
Ventilation: Handle in a fume hood to avoid vapors
Gloves: Handle with rubber or latex/nitrile gloves
Eye Protection: Safety goggles

Physical and Chemical Properties
Form: Liquid
Color: No data available
Odor: No data available
Melting Point: No data available
Boiling Temperature: No data available
Density: No data available
Vapor Pressure: No data available
Solubility in Water: Soluble
Flash Point: NA
Explosion limits: NA
Ignition Temperature: No data available

Stability and Reactivity
Stable under recommended storage conditions.

Disposal Considerations
Absorb spill and place in a container for disposal according to local regulations.

TRITON X-100

Hazard Information
Chemical Name: TRITON X-100
Chemical Formula: (C\(_2\)-H\(_4\)-O)\(_n\)C\(_14\)-H\(_22\)-O
CAS Number: 9002-93-1

First Aid Measures
Eye Contact: Can causes eye irritation.
Skin Contact: Causes skin irritation and is toxic if absorbed through skin.
Inhalation: May be harmful if inhaled. Causes respiratory tract irritation.
Ingestion: Harmful if swallowed.

Accidental Release Measures
If inhaled, move person into fresh air. If not breathing give artificial respiration and consult a physician.
In case of skin contact, wash off with soap and plenty of water.
In case of eye contact, rinse thoroughly with plenty of water for at least 15 minutes.
If swallowed do NOT induce vomiting. Rinse mouth with water and consult a physician.
Handling and Storage
Handling: Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Handle powder in a fume hood. Keep container tightly closed in a cool, dry, well-ventilated place.

Exposure Controls / Personal Protection
Ventilation: Handle in a well-ventilated area
Gloves: Handle with rubber or latex gloves
Eye Protection: Safety glasses, goggles or face shield to protect from splash hazard

Physical and Chemical Properties
Form: Liquid
Color: Colorless
Odor: Odorless
Melting Point: 6 degrees C (42.8 degrees F)
Boiling Temperature: 270 degrees C (518 degrees F)
Density: No data available
Vapor Pressure: No data available
Solubility in Water: Very soluble
Flash Point: No data available
Explosion limits: No data available
Ignition Temperature: No data available

Stability and Reactivity
Stable under recommended storage conditions.

Disposal/Spill Considerations
Absorb spill and place in a container for disposal according to local regulations.

EDTA
Hazard Information
Chemical Name: Ethylenediaminetetraacetic Acid Tetrasodium Salt, Dihydrate
Chemical Formula: C10H12N2Na4O8.2H2O
CAS Number: 10378-23-1

First Aid Measures
Eye Contact: Can cause slight eye irritation.
Skin Contact: Can cause slight skin irritation.
Inhalation: Can cause slight respiratory tract irritation.
Ingestion: Harmful if swallowed.

Accidental Release Measures
If inhaled, move person into fresh air. If not breathing give artificial respiration and consult a physician.
In case of skin contact, wash off with soap and plenty of water.
In case of eye contact, rinse thoroughly with plenty of water for at least 15 minutes.
If swallowed do NOT induce vomiting. Rinse mouth with water and consult a physician.

Handling and Storage
Handling: Avoid contact with skin and eyes. Keep container tightly closed in a cool, dry, well-ventilated place.

Exposure Controls / Personal Protection
Ventilation: Handle in a well-ventilated area
Gloves: Handle with rubber or latex gloves
Eye Protection: Safety glasses, goggles or face shield
Physical and Chemical Properties
Form: Solid
Color: White
Odor: No data available
Melting Point: No data available
Boiling Temperature: No data available
Density: No data available
Vapor Pressure: No data available
Solubility in Water: soluble
Flash Point: > 93.3 degrees C (200 degrees F)
Explosion limits: No data available
Ignition Temperature: No data available

Stability and Reactivity
Stable under recommended storage conditions.

Disposal Considerations
Absorb spill and place in a container for disposal according to local regulations.
Limitations
This product is for research use only and is not approved for use in humans or in clinical diagnosis. ELISA Kits are guaranteed for 6 months from date of receipt.

For more information on our guarantee, please visit www.novusbio.com/guarantee.