

# Product Datasheet

## Human, Mouse, Rat RelA/NFkB p65 ELISA Kit (Colorimetric) NBP2-29661-1Kit

Unit Size: 1 Kit

Storage is content dependent.

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**NBP2-29661-1Kit**

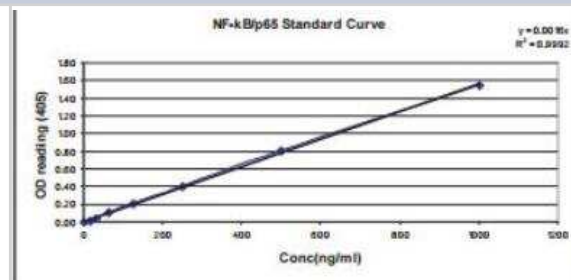
Human, Mouse, Rat RelA/NFkB p65 ELISA Kit (Colorimetric)

<b>Product Information</b>	
<b>Unit Size</b>	1 Kit
<b>Concentration</b>	Concentration is not relevant for this product. Please see the protocols for proper use of this product.
<b>Storage</b>	Storage is content dependent.
<b>Product Description</b>	
<b>Description</b>	<p>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.</p> <p>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. 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].</p>
<b>Gene ID</b>	5970
<b>Gene Symbol</b>	RELA
<b>Species</b>	Human, Mouse, Rat
<b>Specificity/Sensitivity</b>	For the detection of cytoplasmic, nuclear and total free NF-kB/p65 in the nucleus of either cells or tissues. Human, mouse, rat and sheep reported in the literature.
<b>Kit Components</b>	Capture Antibody 200ul, 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
<b>Standard Curve Range</b>	15.6 - 1000 ng/ml
<b>Sensitivity</b>	15.6 ng/ml
<b>Assay Type</b>	Sandwich ELISA
<b>Suitable Sample Type</b>	Cell and tissue lysates
<b>Sample Volume</b>	0.1 ml
<b>Product Application Details</b>	
<b>Applications</b>	ELISA
<b>Recommended Dilutions</b>	ELISA

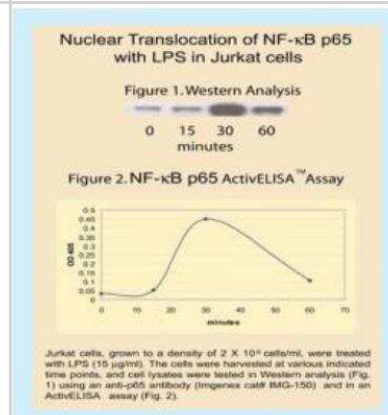


## Images

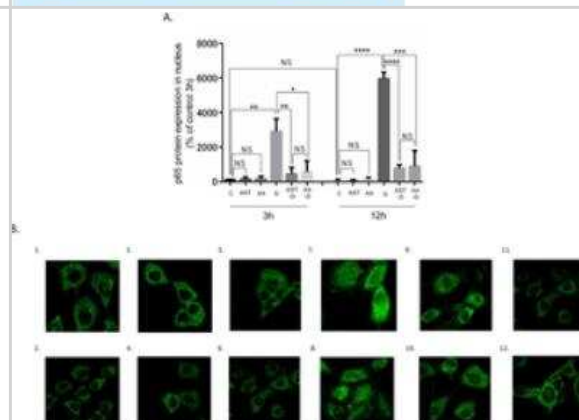
ELISA: Human, Mouse, Rat RelA/NFkB p65 ELISA Kit (Colorimetric) [NBP2-29661] - Standard curve using the internal RelA standard.



ELISA: Human, Mouse, Rat RelA/NFkB p65 ELISA Kit (Colorimetric) [NBP2-29661] - Nuclear translocation of NF-kB p65 with LPS in Jurkat cells. Jurkat cells, grown to a density of  $2 \times 10^6$  cells/ml, were treated with LPS (15  $\mu$ g/ml). The cells were harvested at various indicated time points, and cell lysates were tested in Western analysis using NB100-56712 and also in this ELISA Kit.



ELISA: Human, Mouse, Rat RelA/NFkB p65 ELISA Kit (Colorimetric) [NBP2-29661] - Immunofluorescence indicates NF-kB p65 subunit was expressed exclusively in AA-G groups and AST-G cytoplasm. High glucose stimulation impact on TSMCs in NF-kB pathway. (A) NF-kB p65 protein subunit expression in TSMCs in each group. (B) NF-kB p65 subunit immunofluorescence. Each number denotes different subunits. Alexa 488 green served as secondary antibodies. Citation: Hara K, Hamada C, Wakabayashi K, Kanda R, Kaneko K, Horikoshi S, et al. (2017) Scavenging of reactive oxygen species by astaxanthin inhibits epithelial-mesenchymal transition in high glucose-stimulated mesothelial cells. PLoS ONE 12(9): e0184332. <https://doi.org/10.1371/journal.pone.0184332>



## Publications

Ahmed M. Awad, Sally L. Elshaer, Rajashekhar Gangaraju, Rania R. Abdelaziz, Manar A. Nader Ameliorative effect of montelukast against STZ induced diabetic nephropathy: targeting HMGB1, TLR4, NF- $\kappa$ B, NLRP3 inflammasome, and autophagy pathways *Inflammopharmacology* 2023-07-27 [PMID: 37498374]

Ghaith K, Shalaby MA, Ramadan A Rosuvastatin Restrains the Headway of Experimentally Induced Liver Fibrosis: Involvement of NF- $\kappa$ B and Nrf2/HO-1 Signaling Pathway *International Journal of Veterinary Science* 2022-11-26 (ELISA)

Srinivas BK, Bourdi A, O'Regan JD et al. Interleukin-1 $\beta$  Disruption Protects Male Mice From Heart Failure With Preserved Ejection Fraction Pathogenesis *Journal of the American Heart Association* 2023-06-22 [PMID: 37345828] (ELISA)

Abdelaziz R, Awad A, Elshaer S et al. Ameliorative effect of montelukast against STZ induced diabetic nephropathy: targeting HMGB1, TLR4, NF- $\kappa$ B, NLRP3 inflammasome, and autophagy pathways. *Research Square* 2023-04-11 (Rat)

Lu Y, Xing C, Zhang C et al. Promotion of IL-17/NF- $\kappa$ B signaling in autoimmune thyroid diseases *Experimental and Therapeutic Medicine* 2022-12-06 [PMID: 36588813] (ELISA)

Details:  
Serum Samples

Lu Y, Xing C, Zhang C et al. Promotion of IL-17/NF- $\kappa$ B signaling in autoimmune thyroid diseases *Experimental and Therapeutic Medicine* 2022-12-06 [PMID: 36588813] (ELISA)

Details:  
Serum Samples

Uniyal A, Kotiyal A, Gadepalli A et al. Epigallocatechin-3-gallate Improves Chronic Alcohol Induced Cognitive Dysfunction in Rats by Interfering with the Neuro-inflammatory, Cell Death and Oxido-nitrosative Stress Pathways *Metab Brain Dis* 2021-08-13 [PMID: 34386880] (ELISA)

Ma C, Wu C, Jou I et al. PKR activation causes inflammation and MMP-13 secretion in human degenerated articular chondrocytes *Redox Biol* 2017-09-05 [PMID: 28869834] (ELISA)

Younis NS, Ghanim AMH The Protective Role of Celastrol in Renal Ischemia-Reperfusion Injury by Activating Nrf2/HO-1, PI3K/AKT Signaling Pathways, Modulating NF- $\kappa$ B Signaling Pathways, and Inhibiting ERK Phosphorylation *Cell biochemistry and biophysics* 2022-03-01 [PMID: 35157199] (ELISA)

Abdel-Latif RT, Wadie W, Abdel-Mottaleb Y Et al. Reposition of the anti-inflammatory drug diacerein in an in-vivo colorectal cancer model *Saudi Pharm J* 2022-02-11 [PMID: 35145347] (ELISA)

Details:  
Citation using the HRP version of this antibody.

Joharapurkar A, Patel V, Kshirsagar S et al. Effect of dual PPAR- $\alpha$ / $\gamma$  agonist saroglitazar on diabetic retinopathy and oxygen-induced retinopathy *European journal of pharmacology* 2021-03-19 [PMID: 33753107] (ELISA, Rat)

Liu Y, Shen W, Chen Q et al. Inhibition of RAGE by FPS-ZM1 alleviates renal injury in spontaneously hypertensive rats *European Journal of Pharmacology* 2020-06-01 [PMID: 32502492] (ELISA, Rat)

More publications at <http://www.novusbio.com/NBP2-29661>

## Procedures

### MSDS (NBP2-29661)

Sodium Azide

#### Hazard Information

Chemical Name: Sodium Azide

Chemical Formula: NaN<sub>3</sub>

CAS Number: 26628-22-8

EEC-No247-852-1

#### 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 detonatable 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<sub>7</sub>H<sub>7</sub>FO<sub>2</sub>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) benzenesulfonylfluoride hydrochloride

Chemical Formula: C<sub>8</sub>H<sub>10</sub>FNO<sub>2</sub>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: a-[(1,1,3,3-Tetramethylbutyl)phenyl]-w-hydroxy-poly(oxy-1,2-ethanediyl)

CAS Number: 9036-19-5

### 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. 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: C<sub>4</sub>H<sub>10</sub>O<sub>2</sub>S<sub>2</sub>

CAS Number: 3483-12-3

#### 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. 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 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. 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:  $C_{10}H_{12}N_2Na_4O_8 \cdot 2H_2O$

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.





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### **Products Related to NBP2-29661-1Kit**

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NBP2-24987-5ug	Recombinant Human RelA/NFkB p65 Protein
210-TA-005	TNF-alpha [Unconjugated]
NB100-2176	RelA/NFkB p65 Antibody
M6000B-1	IL-6 [HRP]

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### **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 100% guarantee, please visit [www.novusbio.com/guarantee](http://www.novusbio.com/guarantee)

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