

Product Datasheet

NFkB p50 (NLS) Inhibitor Peptide Set NBP2-29323

Unit Size: 2 mg

Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.

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NBP2-29323**NFkB p50 (NLS) Inhibitor Peptide Set**

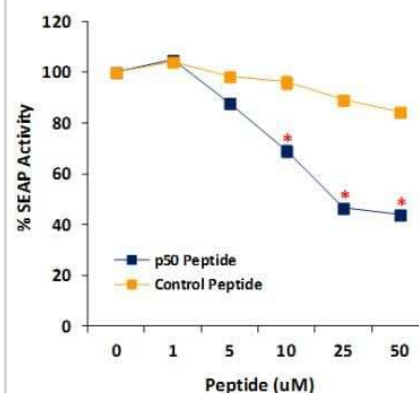
Product Information	
Unit Size	2 mg
Concentration	Lyoph
Storage	Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.
Reconstitution Instructions	Please contact technical support for detailed reconstitution instructions.
Product Description	
Gene ID	4790
Gene Symbol	NFKB1
Species	Human, Mouse, Rat, Bovine, Canine, Chicken, Xenopus
Reactivity Notes	Broad: Peptide sequence is 100% conserved across multiple species.
Specificity/Sensitivity	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
Immunogen	Functions as a p50 decoy by blocking the intracellular recognition mechanism of p50 NLS.
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
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	
Applications	Functional (Inhibition)
Recommended Dilutions	Functional (Inhibition) reported in scientific literature (PMID 24384074)

Application Notes

Inhibition of NF- κ B 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 μ M 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.

Images

Functional (Inhibition): NF κ B p105/p50 Inhibitor Peptide Set [NBP2-29323] - TLR5/NF- κ B/SEAPorter HEK 293 (NBP2-26277) cells were plated in 96-well plates at 5×10^4 cells/well for 16 h. Cells were preincubated with different concentrations (0, 1, 5, 10, 25 and 50 μ M) 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

Karim ZA, Hensch NR, Qasim H et al. Role of I kappa B Kinase beta in Regulating the Remodeling of the CARMA1-Bcl10-MALT1 Complex Biochem Biophys Res Commun. 2018-06-01 [PMID: 29649481] (Mouse)

Khan, A;Bakhru, P;Saikolappan, S;Das, K;Soudani, E;Singh, CR;Estrella, JL;Zhang, D;Pasare, C;Ma, Y;Sun, J;Wang, J;Hunter, RL;Tony Eissa, N;Dhandayuthapani, S;Jagannath, C; An autophagy-inducing and TLR-2 activating BCG vaccine induces a robust protection against tuberculosis in mice NPJ Vaccines 2019-08-05 [PMID: 31396406] (B/N, Mouse)

Ishizuka EK, Filgueiras LR, Rios FJ et al. PAFR activation of NF-kB p65 or p105 precursor dictates pro- and anti-inflammatory responses during TLR activation in murine macrophages. Sci Rep. 2016-08-24 [PMID: 27554194] (Mouse)

Haker Steven, Wells William M 3rd, Warfield Simon K et al. Combining classifiers using their receiver operating characteristics and maximum likelihood estimation. Med Image Comput Comput Assist Interv. 2005-01-01 [PMID: 16685884]

Park Jang-Yeon, Moeller Steen, Goerke Ute et al. Short echo-time 3D radial gradient-echo MRI using concurrent dephasing and excitation. Magn Reson Med. 2012-02-01 [PMID: 21702064] (Human)

Ababneh Sufyan Y, Prescott Jeff W, Gurcan Metin N. Automatic graph-cut based segmentation of bones from knee magnetic resonance images for osteoarthritis research. Med Image Anal. 2011-08-01 [PMID: 21474362] (Human)

Stassi Stefano, Cauda Valentina, Canavese Giancarlo, Pirri Candido Fabrizio. Flexible tactile sensing based on piezoresistive composites: a review. Sensors (Basel). 2014-01-01 [PMID: 24638126] (Human)

Bakhru P, Sirisaengtaksin N, Soudani E et al. BCG vaccine mediated reduction in the MHC-II expression of macrophages and dendritic cells is reversed by activation of Toll-like receptors 7 and 9. Cell Immunol 2014-01-01 [PMID: 24384074] (Forced Spectroscopy, Mouse)

Branski RC, Zhou H, Sandulache VC et al. Cyclooxygenase-2 signaling in vocal fold fibroblasts. Laryngoscope. 2010-09-01 [PMID: 20717945]

Details:

Product cited: 1. NF-kB 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

Buchau AS, MacLeod DT, Morizane S et al. Bcl-3 acts as an innate immune modulator by controlling antimicrobial responses in keratinocytes. J Invest Dermatol. 2009-09-01 [PMID: 19282837]

Mohamed JS, Lopez MA, Cox GA, Boriek AM. Anisotropic regulation of Ankrd2 gene expression in skeletal muscle by mechanical stretch. FASEB J. 2010-09-01 [PMID: 20442316]

Details:

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

Fang X, Neyrinck AP, Matthay MA, Lee JW. Allogeneic human mesenchymal stem cells restore epithelial protein permeability in cultured human alveolar type II cells by secretion of angiopoietin-1. J Biol Chem. 2010-08-20 [PMID: 20554518]

Details:

Product cited: 1. NF-kB 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)

NFkB p50 (NLS) Inhibitor Peptide Set:

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





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Products Related to NBP2-29323

210-TA-005	TNF-alpha [Unconjugated]
M6000B-1	IL-6 [HRP]
NB100-56566	TLR4 Antibody (76B357.1) - BSA Free
NBP2-22203	ERK1 Antibody (1E5) - BSA Free

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