

Product Datasheet

TRAF-6 Inhibitor Peptide Set

NBP2-26506

Unit Size: 2 mg

Store at -20C. Avoid freeze-thaw cycles.

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NBP2-26506**TRAF-6 Inhibitor Peptide Set**

Product Information	
Unit Size	2 mg
Concentration	Lyoph
Storage	Store at -20C. Avoid freeze-thaw cycles.
Reconstitution Instructions	Please contact technical support for detailed reconstitution instructions.
Buffer	Form: White Solid Solubilize the peptides prior to use by making 5 mM PBS* stock solutions (please see Preparation of 5 mM Stock Solutions under Preparation Method).

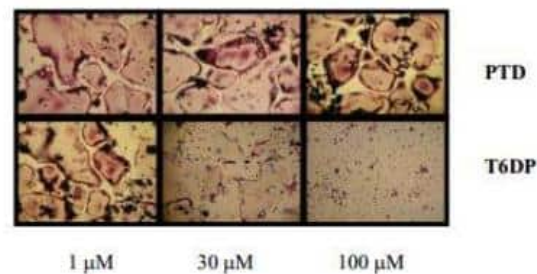
Product Description	
Gene ID	7189
Gene Symbol	TRAF6
Species	Human, Mouse, Rat
Specificity/Sensitivity	The TRAF6 inhibitory peptide also contains a protein transduction (PTD) sequence (DRQIKIWFQNRRMKWKK) derived from antennapedia which renders the peptide cell permeable. The control peptide consists of only the PTD sequence.
Immunogen	Functions as a TRAF6 decoy by binding to the T6DP motif of RANK, thereby preventing binding of RANK to TRAF6.
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. TRAF6 Inhibitor Peptide: 1 mg of DRQIKIWFQNRRMKWKKRKIPTEDEY Add 57.7 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	TRAF6
Inhibitor Content	TRAF6 Inhibitor peptide: 2 x 1 mg (lyophilized) DRQIKIWFQNRRMKWKKRKIPTEDEY (TRAF6 binding sequence: RKIPTEDEY). Molecular weight: 3494. Antennapedia Control peptide: 2 x 1 mg (lyophilized) DRQIKIWFQNRRMKWKK. Molecular weight: 2361.

Product Application Details

Applications	In vitro assay, Block/Neutralize
Recommended Dilutions	In vitro assay reported in scientific literature (PMID 24829345), Block/Neutralize reported in scientific literature (PMID 24829345)
Application Notes	<p>Inhibition of RANKL mediated osteoclast differentiation.</p> <p>Researchers can study the effect of TRAF6 inhibitor peptide using a variety of methods, such as EMSA, NF-kB/p65 ELISA, IκBα phosphorylation ELISA, osteoclast differentiation assay. The Osteoclast formation assay protocol is a guideline which may need to be optimized for different cell types.</p>

Images

TRAF6 Inhibitor Peptide Set [NBP2-26506] - The TRAF6 inhibitory peptide inhibits osteoclast differentiation: RAW264.7 cells were plated on 24-well plates and stimulated with RANKL and M-CSF and incubated in the presence of different concentrations of control peptide (PTD) or the TRAF6. The TRAF6 at the concentration above 30 μ M suppressed osteoclast differentiation.



Publications

Fabian Gehler, Michael S. Ostertag, Thomas Sommermann, Daniel Weidl, Kai R. Sterz, Helmut Kutz, Andreas Moosmann, Stephan M. Feller, Arie Geerlof, Brigitte Biesinger, Grzegorz M. Popowicz, Johannes Kirchmair, Arnd Kieser Epstein-Barr virus-driven B cell lymphoma mediated by a direct LMP1-TRAF6 complex *Nature Communications* 2024-01-10 [PMID: 38195569]

Kondegowda NG, Filipowska J, Do JS et al. RANKL/RANK is required for cytokine-induced beta cell death; osteoprotegerin, a RANKL inhibitor, reverses rodent type 1 diabetes *Science advances* 2023-11-03 [PMID: 37910614]

Halpin JC, Whitney D, Rigoldi F et al. Molecular determinants of TRAF6 binding specificity suggest that native interaction partners are not optimized for affinity *Protein science : a publication of the Protein Society* 2022-11-01 [PMID: 36305766]

Gehler F, Ostertag M, Sommermann T et al. Epstein-Barr virus-driven B cell lymphoma mediated by a unique LMP1-TRAF6 complex *Research Square* 2022-02-04

Meng Y, Liu C, Shen L et al. TRAF6 mediates human DNA2 polyubiquitination and nuclear localization to maintain nuclear genome integrity *Nucleic Acids Res.* 2019-06-19 [PMID: 31216032] (B/N)

kisiswa L, Fernandez-Suarez D, Sergaki MC, Ibanez CF. RIP2 Gates TRAF6 Interaction with Death Receptor p75NTR to Regulate Cerebellar Granule Neuron Survival. *Cell Rep.* 2018-07-24 [PMID: 30044969] (WB, Mouse)

Pushalkar S, Hundeyin M, Daley D et al. The Pancreatic Cancer Microbiome Promotes Oncogenesis by Induction of Innate and Adaptive Immune Suppression. *Cancer Discov.* 2018-03-22 [PMID: 29567829] (B/N, Mouse)

Biswas S, Zimman A, Gao D et al. TLR2 Plays a Key Role in Platelet Hyperreactivity and Accelerated Thrombosis Associated with Hyperlipidemia *Circ. Res.* 2017-08-03 [PMID: 28775078] (B/N, Mouse)

Wu DJ, Gu R, Sarin R et al. Autophagy-linked FYVE containing protein WDFY3 interacts with TRAF6 and modulates RANKL-induced osteoclastogenesis. *J. Autoimmun.* 2016-06-18 [PMID: 27330028] (Mouse)

Majewski Pawel M, Thurston Robert D, Ramalingam Rajalakshmy et al. Cooperative role of NF- κ B and poly (ADP-ribose) polymerase 1 (PARP-1) in the TNF-induced inhibition of PHEX expression in osteoblasts. *J Biol Chem.* 2010-11-05 [PMID: 20817730]

Krupinski Elizabeth A. Virtual slide telepathology workstation of the future: lessons learned from teleradiology. *Hum Pathol.* 2009-08-01 [PMID: 19552939] (Human)

Hou W, Jin YH, Kang HS, Kim BS. IL-6 and IL-17 synergistically promote viral persistence by inhibiting cellular apoptosis and cytotoxic T cell function. *J. Virol.* 2014-05-14 [PMID: 24829345] (In vitro, B/N, Mouse)

Details:

Mouse bone marrow cells, Fig 7C. Cells were treated with 100 μ M TRAF6 inhibitory or control peptides prior to cytokine stimulation.

More publications at <http://www.novusbio.com/NBP2-26506>



Procedures

MSDS (NBP2-26506)

TRAF-6 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 NBP2-26506

NB100-56179PEP	TRAF-6 Antibody Blocking Peptide
210-TA-005	TNF-alpha [Unconjugated]
NB100-56179	TRAF-6 Antibody - BSA Free
M6000B-1	IL-6 [HRP]

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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