Product Datasheet

MyD88 Inhibitor Peptide Set
NBP2-29328

Unit Size: 2 mg

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

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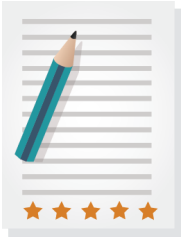
Updated 10/23/2024 v.20.1



NBP2-29328

MyD88 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.
Buffer	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	4615
Gene Symbol	MYD88
Species	Human, Mouse, Rat, Bovine, Xenopus, Yeast, Zebrafish
Reactivity Notes	Yeast reactivity reported in scientific literature (PMID: 27870876).
Specificity/Sensitivity	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.
Immunogen	Functions as a decoy by binding to the MyD88 TIR domain.
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. MyD88 Homodimerization Inhibitor Peptide: 1 mg of DRQIKIWFQNRRMKWKKRDVLPGT Add 64.4 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 Target	MyD88
Inhibitor Content	2 x 1.0mg: MyD88 Homodimerization Inhibitor peptide (lyophilized) DRQIKIWFQNRRMKWKKRDVLPGT (MyD88 homodimerization sequence: RDVLPGT). Molecular weight: 3100 2 x 1.0mg: Antennapedia Control peptide (lyophilized) DRQIKIWFQNRRMKWKK. Molecular weight: 2361 5mg size will contain 5mg of each peptide (MyD88 Homodimerization Inhibitor peptide and Antennapedia Control peptide).

Product Application Details

Applications	ELISA, Flow Cytometry, Functional (Inhibition), Immunohistochemistry, In vitro assay, In vivo assay, Block/Neutralize, Binding Inhibition
Recommended Dilutions	Flow Cytometry reported in scientific literature (PMID 27870876), ELISA 1:100 - 1:2000. Use reported in scientific literature (PMID 23469306), Immunohistochemistry reported in scientific literature (PMID 28282921), In vitro assay reported in scientific literature (PMID 25810567), In vivo assay reported in scientific literature (PMID 24755282), Functional (Inhibition) reported in multiple pieces of scientific literature, Binding Inhibition reported in scientific literature (PMID 28302163), Block/Neutralize reported in scientific literature (PMID 24886588)
Application Notes	Inhibition of MyD88 dependent TLR/IL-1R signaling activitiy by interefering with MyD88 homodimer formation. Inhibitory peptide at 100 uM concentration may be a starting point. However, useful concentration of peptide may vary depending on experimental condition and cell type. Incubate cells for 24 hr with peptides before stimulating with ligands.

Publications

D Yuan, S Huang, E Berger, L Liu, N Gross, F Heinzmann, M Ringelhan, TO Connor, M Stadler, M Meister, J Weber, R Öllinger, N Simonavici, F Reisinger, D Hartmann, R Meyer, M Reich, M Seehawer, V Leone, B Höchst, D Wohlleber, S Jörs, M Prinz, D Spalding, U Protzer, T Luedde, L Terraccian, M Matter, T Longerich, P Knolle, T Ried, V Keitel, F Geisler, K Unger, E Cinnamon, E Pikarsky, N Hüser, RJ Davis, DF Tschaharga, R Rad, A Weber, L Zender, D Haller, M Heikenwald Kupffer Cell-Derived Tnf Triggers Cholangiocellular Tumorigenesis through JNK due to Chronic Mitochondrial Dysfunction and ROS Cancer Cell, 2017-06-12;31(6):771-789.e6. 2017-06-12 [PMID: 28609656]

Sahanic S, Hilbe R, Dünser C et al. SARS-CoV-2 activates the TLR4/MyD88 pathway in human macrophages: A possible correlation with strong pro-inflammatory responses in severe COVID-19 Heliyon 2023-11-01 [PMID: 38034686]

Firmal P, Shah VK, Pant R, Chattopadhyay S. RING finger protein TOPORS modulates the expression of tumor suppressor SMAR1 in colorectal cancer via the TLR4-TRIF pathway Molecular Oncology 2022-04-01 [PMID: 34689394]

Thapa HB, Kohl P, Zingl FG et al. Characterization of the Inflammatory Response Evoked by Bacterial Membrane Vesicles in Intestinal Cells Reveals an RIPK2-Dependent Activation by Enterotoxigenic Escherichia coli Vesicles Microbiology spectrum 2023-06-12 [PMID: 37306596] (Func-Inh)

Katab E, Kumar A, Steiger K et al. NF-?B c-REL-OTUD4 axis regulates B-cell receptor in B-cell lymphoma bioRxiv 2023-05-08

Kwon O, Lee S Ishige okamurae Attenuates Neuroinflammation and Cognitive Deficits in Mice Intracerebroventricularly Injected with LPS via Regulating TLR-4/MyD88-Dependent Pathways Antioxidants 2022-12-29 [PMID: 36670940]

Yao XP, Ye J, Feng T et al. Adaptor protein MyD88 confers the susceptibility to stress via amplifying immune danger signals Brain, behavior, and immunity 2022-12-07 [PMID: 36496170] (In Vivo)

Liao Y, Guo C, Wen A et al. Frankincense-Myrrh treatment alleviates neuropathic pain via the inhibition of neuroglia activation mediated by the TLR4/MyD88 pathway and TRPV1 signaling Phytomedicine : international journal of phytotherapy and phytopharmacology 2023-01-01 [PMID: 36379093] (In Vivo, Mouse)

jiang w, Luo Z, Fitting S et al. Chronic Cannabis Smoking-Enriched Oral Pathobiont Drives Behavioral Changes and Increases beta -Amyloid Protein Production in the Brain EBioMedicine 2021-11-26 [PMID: 34826801]

Jacobovitz MR, Rupp S, Voss PA Dinoflagellate symbionts escape vomocytosis by host cell immune suppression Nat Microbiol 2021-04-30 [PMID: 33927382]

Kim Y, Jo M, Schmidt J, et al. Enhanced Potency of GalNAc-conjugated Antisense Oligonucleotides in Hepatocellular Cancer Models Mol Ther 2019-07-16 [PMID: 31303442]

Chen M, Deng H, Zhao Y et al. Toll-Like Receptor 2 Modulates Pulmonary Inflammation and TNF-alpha Release Mediated by Mycoplasma pneumoniae Frontiers in Cellular and Infection Microbiology 2022-03-17 [PMID: 35372108] (Forced Spectroscopy)

More publications at http://www.novusbio.com/NBP2-29328

Procedures

MSDS (NBP2-29328)

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 NBP2-29328

NB100-56698PEP	MyD88 Antibody Blocking Peptide
210-TA-005	TNF-alpha [Unconjugated]
NB100-56698	MyD88 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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