

Product Datasheet

MALP-2, TLR6 and TLR2 ligand NBP2-26219-2ug

Unit Size: 2 ug

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

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NBP2-26219-2ug

MALP-2, TLR6 and TLR2 ligand

Product Information	
Unit Size	2 ug
Concentration	Please see the protocols for proper use of this product. If no protocol is available, contact technical services for assistance.
Storage	Store at -20C. Avoid freeze-thaw cycles.
Buffer	2 ug in 20 uL of sterile PBS solution containing 2.5% (v/v) 2-propanol, 25 mM n-octyl-b-D-glucopyranoside and 1% (wt/v) human serum albumin.
Product Description	
Description	Disclaimer Note -Disclaimer Note - Human Serum- No test method can provide total assurance that the hepatitis B virus, hepatitis C virus, human immunodeficiency virus, or any other infectious agents are absent. Thus, all blood products, including purified proteins derived from human blood sources, should be handled at Biosafety Level 2 as recommended by the CDC\NIH manual entitled Biosafety in Microbiological and Biomedical Laboratories for potentially infectious human serum, blood specimens or proteins derived from same. Source material for the human blood product supplied to your facility has been tested for the detection of HIV antibody, Hepatitis B surface antigen, antibody to Hepatitis C, HIV 1 antigen(s), antibody to HTLV - I/II, and syphilis by FDA guidelines. All units were found to be non-reactive/negative for these tests. All human blood source material is collected in FDA licensed centers and is tested with FDA approved test kits. Human Serum- No test method can provide total assurance that the hepatitis B virus, hepatitis C virus, human immunodeficiency virus, or any other infectious agents are absent. Thus, all blood products, including purified proteins derived from human blood sources, should be handled at Biosafety Level 2 as recommended by the CDC\NIH manual entitled Biosafety in Microbiological and Biomedical Laboratories for potentially infectious human serum, blood specimens or proteins derived from same. Source material for the human blood product supplied to your facility has been tested for the detection of HIV antibody, Hepatitis B surface antigen, antibody to Hepatitis C, HIV 1 antigen(s), antibody to HTLV - I/II, and syphilis by FDA guidelines. All units were found to be non-reactive/negative for these tests. All human blood source material is collected in FDA licensed centers and is tested with FDA approved test kits.
Species	Non-species specific
Specificity/Sensitivity	MALP-2 was originally isolated from Mycoplasma fermentans. This MALP-2 corresponds to the originally isolated isomer, which expresses potent endotoxin-like activity and approaches in certain experimental systems the toxicity of LPS. For description of the stereochemistry of MALP-2 please refer to M. Morr, et al. Eur. J. Immunol. 32, 3337 (2002). The importance of the stereochemistry of the central carbon atom of the diacylglycerol group has been described in the K.M. Omueti, et al. paper (2005), see below. Formula: C99H167N19O30S
Immunogen	MALP-2, TLR6 and TLR2 ligand
Details of Functionality	Specific Activity is approx 2×10^8 units/mg. One unit is defined as the dilution giving half maximal release of nitric oxide from C3H/HeJ mouse peritoneal exudate cells in the standard assay.
Product Application Details	
Applications	Functional, In vitro assay
Recommended Dilutions	Functional, In vitro assay

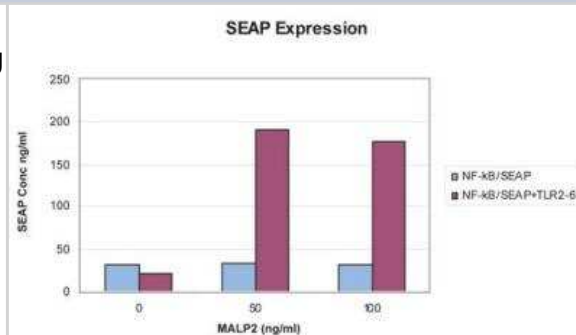


Application Notes

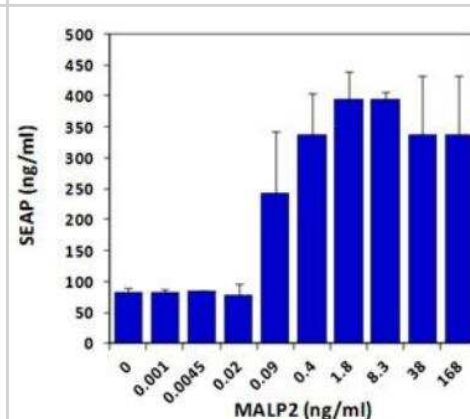
Source: Synthetic
 Formula: C99H167N19O30S
 MW: 2135.2
 Use in In-vitro and functional assay reported in scientific literature (PMID: 25466255).

Images

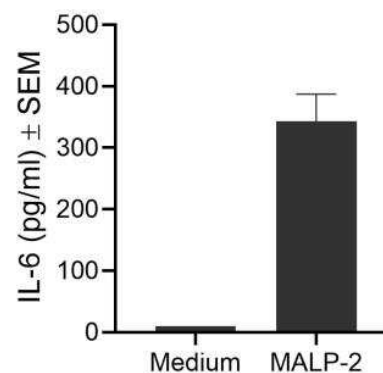
MALP-2, TLR6 and TLR2 ligand [NBP2-26219] - 293 cells were transfected with pCMV/TLR2-6 plasmid and pNF-kB/SEAP plasmid using Lipofectamin 2000. After 48 hrs of transfection, 50 and 100 ng/mL of MALP2 as added. Cells were incubated at 37C for 24 hrs. Transfected cell supernatant was collected and analyzed using the NF-kB SEAPorter Assay kit.



MALP-2, TLR6 and TLR2 ligand [NBP2-26219] - Evaluation of the MALP2 ligand activity on TLR2/NF-kB SEAPorter HEK 293 cell line. Cell line is a stably co-transfected cell line that expresses full-length human Toll-like receptor 2 (TLR2) and the secreted alkaline phosphatase (SEAP) reporter gene under the transcriptional control of an NF-kB response element. Cells were plated in 96-well plates at 5×10^4 cells/well. After 16 h, cells were stimulated with various amounts of MALP2 for 24 h. SEAP was analyzed using the SEAPorter Assay Kit. Data Summary: MALP2 specifically activated the TLR2/6-dependent NF-kB/SEAP reporter cells in a dose dependent manner. Note: HEK 293 cells endogenously express TLR6.



MALP-2, TLR6 and TLR2 ligand [NBP2-26219] - Differentiated human macrophages were treated with or without MALP-2 (100 ng/mL), and the release of IL-6 in culture supernatants of cells was measured by ELISA kit. Image submitted by a verified customer review.



Publications

Liu Y, Diamond SL. Activation of Most Toll-Like Receptors in Whole Human Blood Attenuates Platelet Deposition on Collagen under Flow *Journal of Immunology Research* 2023-01-17 [PMID: 36703865]

Calses PC, Pham VC, Guarnaccia AD et al. TEAD Proteins Associate With DNA Repair Proteins to Facilitate Cellular Recovery From DNA Damage *Molecular & Cellular Proteomics* 2023-02-01 [PMID: 36640924]

Gasiorek A, Dobosz E, Potempa B Et Al. Subversion of Lipopolysaccharide Signaling in Gingival Keratinocytes via MCP-1 Degradation as a Novel Pathogenic Strategy of Inflammophilic Pathobionts *mBio* 2021-06-29 [PMID: 34182783]

Nogiec A, Bzowska M, Demczuk A Phenotype and Response to PAMPs of Human Monocyte-Derived Foam Cells Obtained by Long-Term Culture in the Presence of oxLDLs *Front Immunol* 2020-08-04 [PMID: 32849539] (Bacteria)

Maruyama K, Kidoya H, Takemura N et al. Zinc Finger Protein St18 Protects against Septic Death by Inhibiting VEGF-A from Macrophages *Cell Rep* 2020-07-14 [PMID: 32668247]

Kanoh H, Nitta T, Go S et al. Homeostatic and pathogenic roles of GM3 ganglioside molecular species in TLR4 signaling in obesity *EMBO J.* 2020-05-07 [PMID: 32378734] (Mouse)

Bi J, Koivisto L, Pang A et al. Suppression of alphaVbeta6 Integrin Expression by Polymicrobial Oral Biofilms in Gingival Epithelial Cells *Sci Rep* 2017-06-30 [PMID: 28667248] (In vitro, Human)

Battin C, Hennig A, Mayrhofer P et al. A human monocytic NF-kB fluorescent reporter cell line for detection of microbial contaminants in biological samples. *PLoS ONE* 2017-05-25 [PMID: 28542462] (FLOW, Human)

Yanai S, Tokuhara D, Tachibana D et al. Diabetic pregnancy activates the innate immune response through TLR5 or TLR1/2 on neonatal monocyte *J. Reprod. Immunol.* 2016-06-22 [PMID: 27351455] (In vitro, Human)

Sigola LB, Fuentes AL, Millis LM et al. Effects of toll-Like receptor ligands on RAW 264.7 macrophage morphology and zymosan phagocytosis. *Tissue and Cell.* 2016-04-22 [PMID: 27157550] (Func, Mouse)

Heidegger S, Jarosch A, Schmickl M et al. Mycoplasma hyorhinis-Contaminated Cell Lines Activate Primary Innate Immune Cells via a Protease-Sensitive Factor. *PLoS ONE.* 2015-11-14 [PMID: 26565413] (Func, In vitro, Mouse)

Details:

MALP-2 (TLR6 and TLR2 ligand) was used at 500 ng/ml concentration for functional assays involving murine B16-F10 (B16) melanoma cell line.

Chen J, Ng MM, Chu JJ. Activation of TLR2 and TLR6 by Dengue NS1 Protein and Its Implications in the Immunopathogenesis of Dengue Virus Infection. *PLoS Pathog.* 2015-07-01 [PMID: 26226614] (Func, Human)

Details:

MALP-2, TLR6 and TLR2 ligand was used at 50 ng/ml concentration (alongwith mock or Dengue Virus DV2-infection and LPS) for treatments of human PBMCs, HEK293 and wild-type or TLR6-/- murine peritoneal macrophages under various experimental conditions.

More publications at <http://www.novusbio.com/NBP2-26219>



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