Product Datasheet

PGLYRP4/PGRP-I beta Antibody (186C426) NB100-56721

Unit Size: 0.1 mg

Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

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NB100-56721

PGLYRP4/PGRP-I beta Antibody (186C426)

Product Information	
Unit Size	0.1 mg
Concentration	0.5 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	186C426
Preservative	0.05% Sodium Azide
Isotype	IgG1
Purity	Protein G purified
Buffer	PBS containing 0.0.5% BSA
Product Description	
Host	Mouse
Gene ID	57115
Gene Symbol	PGLYRP4
Species	Human
Immunogen	This antibody was developed against KLH-conjugated synthetic peptide corresponding to amino acids 95-110 of human PGRP-1 beta.
Product Application Details	
Applications	Western Blot, Flow (Cell Surface), Flow (Intracellular), Immunocytochemistry/ Immunofluorescence
Recommended Dilutions	Western Blot, Immunocytochemistry/ Immunofluorescence 1:10-1:2000. Use reported in scientific literature (Uehara et al (2005)), Flow (Cell Surface) reported in scientific literature (PMID 15839897), Flow (Intracellular) reported in scientific literature (PMID 16849490)



Western Blot: PGLYRP4/PGRP-I beta Antibody (186C426) [NB100-56721] - Analysis in cell lysates from human brain using a dilution of 2 ug/ml.

Immunocytochemistry/Immunofluorescence: PGLYRP4/PGRP-I beta Antibody (186C426) [NB100-56721] - A. HCECs were exposed to HKCA (106 cells/ml) with prior incubation in the absence or presence of isotype IgG (10ug/ml), dectin-1 neutralizing Ab (10ug/ml), BAY11-7082 (10uM) or NF-kB activation inhibitor quinazoline (NF-kB-I, 10uM) for 1 h. HCECs were treated with 106 cells/ml HKCA for 48 hours in 8-chamber slides and examined by immunofluorescent staining for PGLYRPs 3 (NB100-56729) and 4. C. The percentages of positive cells of PGLYRPs 3 and 4 staining in HCECs in A was quantified. Results shown are the mean +/-SD of four independent experiments; *** p<0.001, as compared with normal control; ^^ p<0.005, ^^ p<0.001, as compared with HCECs exposed to HKCA. Magnification: 400x (bar = 25um). Image collected and cropped by CiteAb from the following publication (https://dx.plos.org/10.1371/journal.pone.0128039) licensed under a CC-BY license.

Immunohistochemistry: PGLYRP4/PGRP-I beta Antibody (186C426) [NB100-56721] - NF-κB p65 activation was induced by HKCA & inhibited by dectin-1 neutralizing antibody & NF-kB activation inhibitor quinazoline (NF-kB-I) in HCECs.A. HCECs were exposed to HKCA (106 cells/ml) with prior incubation in the absence or presence of isotype IgG (10µg/ml), dectin-1 neutralizing Ab (10µg/ml), BAY11-7082 (10µM) or NF-kB activation inhibitor quinazoline (NF-kB-I, 10µM) for 1 h. HCECs were treated with 106 cells/ml HKCA for 48 hours in 8-chamber slides & examined by immunofluorescent staining for PGLYRPs 2-4. B. HCECs were treated for 4 hours in 8-chamber slides & were fixed in acetone for immunofluroscent staining total p65 (nuclear translocation) (green). C. The percentages of positive cells of PGLYRPs 2–4 staining in HCECs in A was guantified. D. The percentages of NF-kB p65 nuclear staining positive cells in B was quantified. Images are representatives from three independent experiments. Results shown are the mean ± SD of four independent experiments; *** p<0.001, as compared with normal control; [^] p<0.005, [^] p<0.001, as compared with HCECs exposed to HKCA. Magnification: 400X (bar = 25µm). Image collected & cropped by CiteAb from the following publication

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Publications

Zhang Y, Zhang S, Li B et al. Age-Related Changes in the Gut Microbiota Promote Atrial Fibrillation Research Square 2020-08-04 (WB, Rat)

Hua X, Yuan X, Li Z et al. A Novel Innate Response of Human Corneal Epithelium to Heat-killed Candida albicans by Producing Peptidoglycan Recognition Proteins PLoS ONE. 2015-06-04 [PMID: 26039076] (ICC/IF, Human)

Details:

PGLYRP4/PGRP-I beta antibody (clone 186C426; Imgenex IMG-414) was used for ICC-IF staining on human corneal epithelial cells /HCECs that were incubated in the absence or presence of isotype IgG (10ug/ml), dectin-1 neutralizing Ab (10ug/ml), BAY11-7082 (10uM) or NF-kB activation inhibitor quinazoline (NF-kB-I, 10uM) for 1 h followed by 48 hours incubation of HKCA/heat-killed Candida albicans (10^6 cells/ml). The immunoassay implicated 10 minutes RT fixation with 2% PFA, 10 minutes RT permeabilization with PBS-0.2% Triton X-100, detection of primary using Alexa-Fluor 488 conjugated secondary antibody (Fig 4A).

Uehara A, Sugawara Y, Kurata S et al. Chemically synthesized pathogen-associated molecular patterns increase the expression of peptidoglycan recognition proteins via toll-like receptors, NOD1 and NOD2 in human oral epithelial cells. Cell Microbiol. 2005-05-01 [PMID: 15839897] (Flow-CS, ICC/IF)

Details:

Flow (cell surface): PGRP-1alpha (IMG-391), PGRP-1beta (IMG-414), and PGRP-S (IMG-393) were used in human oral epithelial (HSC-2) cell lines, Fig 3. IF/ICC: HSC-2 cells stimulated with or without lipid A, muramyldipeptide (MDP), gama-D-glutamyl-meso-DAP (iE-DAP), or IFN gamma then stained with PGRP-1beta (IMG-414), Fig 4.

Uehara A, Fujimoto Y, Fukase K, Takada H. Various human epithelial cells express functional Toll-like receptors, NOD1 and NOD2 to produce anti-microbial peptides, but not proinflammatory cytokines. Mol Immunol. 2007-05-01 [PMID: 17403538] (Flow-CS, Human)

Details:

The following products were used in flow (cell surface): PGRP-1alpha (IMG-391), PGRP-1beta (IMG-414), PGRP-S (IMG-393). Human oral epithelial (HSC-2, HSC-3, SAS, & HO-1-u-1), human pharyngeal epithelial (HEp-2), human esophageal epithelial (TE-1), human b

Ma P, Wang Z, Pflugfelder SC, Li DQ. Toll-like receptors mediate induction of peptidoglycan recognition proteins in human corneal epithelial cells. Exp Eye Res. 2010-01-01 [PMID: 19799901] (ICC/IF, Human)

Details:

PGRP-1alpha (IMG-391) & PGRP-1beta (IMG-414). IF/ICC: Human corneoscleral tissue & primary cultured human corneal epithelial cells, Fig 1.

Uehara A, Takada H. Synergism between TLRs and NOD1/2 in oral epithelial cells. J Dent Res. 2008-07-01 [PMID: 18573991] (Flow-CS)

Details:

flow (cell surface): PGRP-1alpha (IMG-391), PGRP-1beta (IMG-414), PGRP-S (IMG-393). Oral epithelial HSC-2 cell line stimulated with Fk156 or muramyldipeptide (MDP) plus FSL-1 and lipid A, Fig 1.

Uehara A, Fujimoto Y, Kawasaki A et al. Meso-diaminopimelic acid and meso-lanthionine, amino acids specific to bacterial peptidoglycans, activate human epithelial cells through NOD1. J Immunol. 2006-08-01 [PMID: 16849490] (Flow Cytometry Control)

Details:

flow (Intracellular): PGRP-1alpha (IMG-391) & PGRP-1beta (IMG-414); Human oral epithelial (HSC-2) cell line, Fig 2.







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Products Related to NB100-56721

NB820-59177	Human Brain Whole Tissue Lysate (Adult Whole Normal)
HAF007	Goat anti-Mouse IgG Secondary Antibody [HRP]
NB720-B	Rabbit anti-Mouse IgG (H+L) Secondary Antibody [Biotin]
NBP1-97005-0.5mg	Mouse IgG1 Isotype Control (MG1)

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