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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Publications: 7

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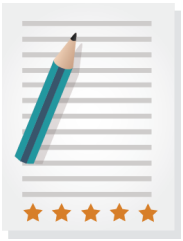
Updated 9/9/2025 v.20.1



NB100-56721

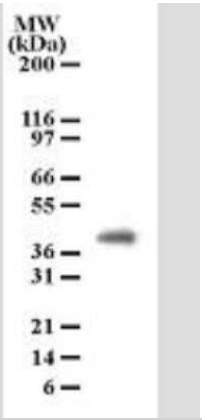
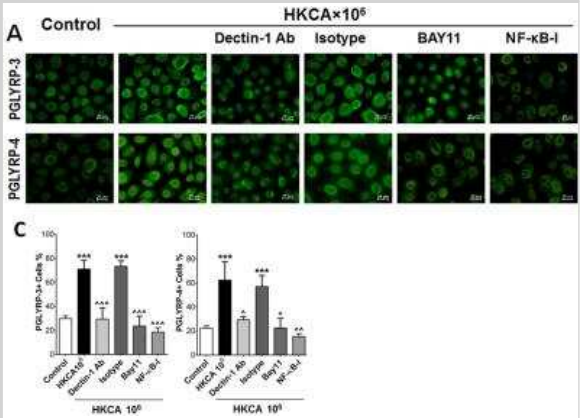
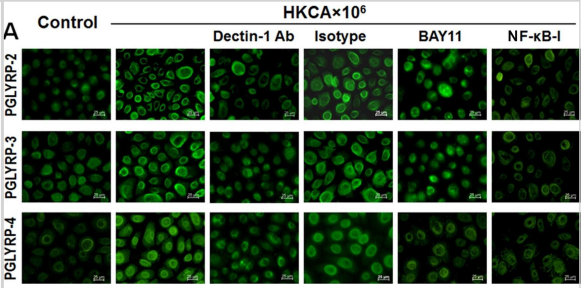
PGLYRP4/PGRP-I beta Antibody (186C426)

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 and 0.05% BSA

Product Description	
Description	Novus Biologicals Mouse PGLYRP4/PGRP-I beta Antibody (186C426) (NB100-56721) is a monoclonal antibody validated for use in WB, Flow and ICC/IF. Anti-PGLYRP4/PGRP-I beta Antibody: Cited in 6 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
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)

Images

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-κB activation inhibitor quinazoline (NF-κB-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-κB activation inhibitor quinazoline (NF-κB-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 quantified. D. The percentages of NF-κB 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 (https://pubmed.ncbi.nlm.nih.gov/26039076), licensed under a CC-BY license. Not internally tested by Novus Biologicals.	

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)
NBP2-33376H	Blue Marker Antibody (6F4-F6) [HRP]
HAF007	Goat anti-Mouse IgG Secondary Antibody [HRP]
NB7539	Goat anti-Mouse IgG (H+L) Secondary Antibody [HRP]
NBP1-97005-0.5mg	Mouse IgG1 Isotype Control (MG1)

Limitations

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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