

# Product Datasheet

## TLR8 Antibody (44C143) - BSA Free NBP2-24917

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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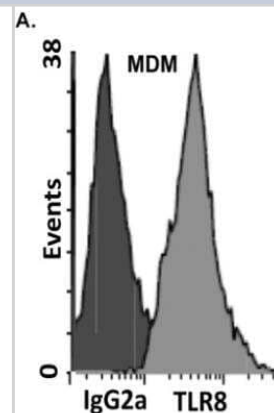
**NBP2-24917**

TLR8 Antibody (44C143) - BSA Free

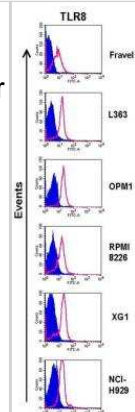
Product Information	
Unit Size	0.1 mg
Concentration	1.0 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	44C143
Preservative	0.05% Sodium Azide
Isotype	IgG1 Kappa
Purity	Protein G purified
Buffer	PBS pH 7.4
Product Description	
Host	Mouse
Gene ID	51311
Gene Symbol	TLR8
Species	Human, Mouse, Rabbit
Immunogen	This antibody was developed against a KLH-conjugated synthetic peptide of human TLR8, within amino acids 750-850.
Product Application Details	
Applications	Western Blot, Simple Western, Dot Blot, Flow Cytometry, Flow (Cell Surface), Flow (Intracellular), Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin, CyTOF-ready
Recommended Dilutions	Western Blot 1-3 ug/ml, Simple Western 20 ug/ml, Flow Cytometry 0.5-1 ug/10 <sup>6</sup> cells, Immunohistochemistry, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry-Paraffin 5 ug/ml, Dot Blot reported in scientific literature (PMID 27248820), Flow (Cell Surface) reported in multiple pieces of scientific literature, Flow (Intracellular) reported in reported in multiple pieces of scientific literature (PMID 24836676), CyTOF-ready
Application Notes	Staining of formalin-fixed tissues is enhanced by boiling tissue sections in 10 mM sodium citrate buffer, pH 6.0 for 10-20 min followed by cooling at RT for 20 min. This antibody is CyTOF ready.

**Images**

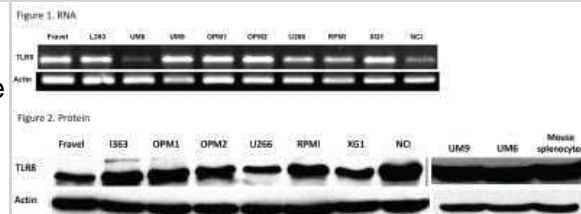
Flow Cytometry: TLR8 Antibody (44C143) [NBP2-24917] - Intracellular expression of TLR8 in monocyte-derived macrophages (MDMs). MDMs which were incubated with PE-conjugated anti-TLR8 or isotype antibody control. Intracellular expression was determined by flow cytometry. Representative profiles were similar in four independent experiments (n=4 subjects). Image collected and cropped by CiteAb from the following publication ([//doi.org/10.1371/journal.pone.0104039](https://doi.org/10.1371/journal.pone.0104039)) licensed under a CC-BY license.



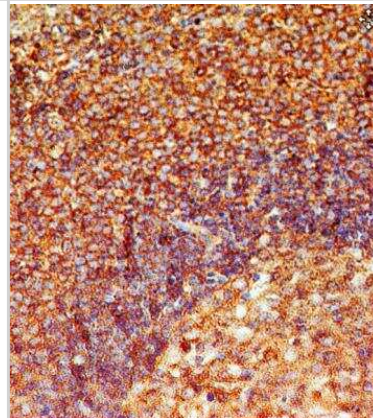
Flow Cytometry: TLR8 Antibody (44C143) [NBP2-24917] - Expression of TLR8 in Fravel, L363, OPM1, RPMI8226, XG1, and NCI-H929 as determined by flow cytometry. HCMLs were stained using an intracellular staining protocol with TLR8 antibodies followed by relevant secondary fluorescent-conjugated antibodies. Filled histograms (purple) represent the isotype controls and the open histograms (red) indicate TLR8. Data are representative for analysis of  $\geq 2$  independent experiments. Image collected and cropped by CiteAb from the following publication ([//doi.org/10.1371/journal.pone.0060671](https://doi.org/10.1371/journal.pone.0060671)) licensed under a CC-BY license.



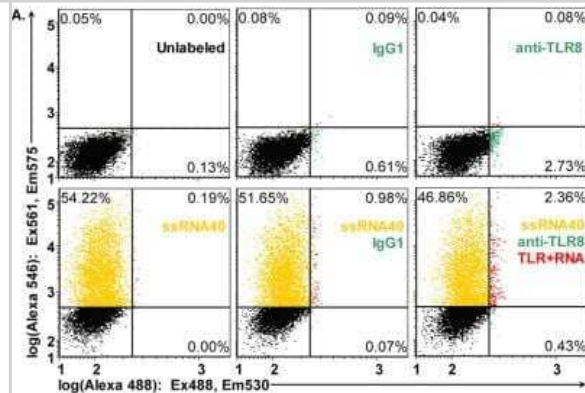
Western Blot: TLR8 Antibody (44C143) [NBP2-24917] - All the cell lines expressed mRNA for TLR8 (Figure 1) and displayed a strong expression of TLR8 protein (Figure 2). Lysates of human intestinal tissue and mouse splenocytes were used as positive controls. Beta-actin was served as loading control and was used to normalize expression levels between cells. Data are representative for analysis of  $\geq 2$  independent experiments. Image collected and cropped by CiteAb from the following publication ([//doi.org/10.1371/journal.pone.0060671](https://doi.org/10.1371/journal.pone.0060671)) licensed under a CC-BY license.



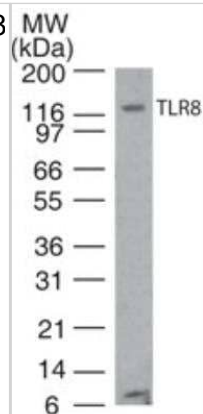
Immunohistochemistry-Paraffin: TLR8 Antibody (44C143) [NBP2-24917] - Formalin-fixed, paraffin-embedded human spleen stained with TLR8 antibody at 2  $\mu$ g/ml.



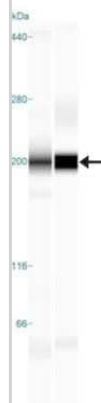
Flow Cytometry: TLR8 Antibody (44C143) [NBP2-24917] - HEK cells expressing TLR8 were treated with ssRNA40-Alexa 546 followed by fixation, permeabilization and staining for TLR8 using anti-TLR8 Alexa 488 conjugate or isotype control IgG1/Kappa Alexa 488. TLR8 detection is shown along the horizontal axis, and ssRNA40 Alexa 546 detection is shown along the vertical axis. Direct excitation (488 and 561 nm lasers) of both fluorophores (Alexa 488 and Alexa 546) allowed quantitation of cells staining positive for TLR8 (anti-TLR8-Alexa488) and cells that had taken up ssRNA40-Alexa 546. Single-stranded RNA40 binds TLR8 (flow cytometry FRET assay). A representative experiment is shown from three independent experiments with similar results. Image collected and cropped by CiteAb from the following publication ([//doi.org/10.1371/journal.pone.0104039](https://doi.org/10.1371/journal.pone.0104039)) licensed under a CC-BY license.



Western Blot: TLR8 Antibody (44C143) [NBP2-24917] - Analysis of TLR8 in human Ramos cell lysate. Goat anti-mouse Ig HRP secondary antibody and PicoTect ECL substrate solution were used for this test.



Simple Western: TLR8 Antibody (44C143) [NBP2-24917] - Simple Western lane view shows a specific band for TLR8 in 0.5 mg/ml of Ramos (left) and Human Spleen (right) lysate. This experiment was performed under reducing conditions using the 12-230 kDa separation system. \* Non-specific interaction with the 230 kDa Simple Western standard may be seen with this antibody Image from the standard format of this antibody.



## Publications

Grant R. Campbell, Pratima Rawat, Stephen A. Spector Pacritinib Inhibition of IRAK1 Blocks Aberrant TLR8 Signalling by SARS-CoV-2 and HIV-1-Derived RNA *Journal of Innate Immunity* 2023-01-01 [PMID: 35785771]

Campbell GR, Rawat P, Teodorof-Diedrich C, Spector SA IRAK1 inhibition blocks the HIV-1 RNA mediated pro-inflammatory cytokine response from microglia *The Journal of general virology* 2023-05-01 [PMID: 37256770]

Helminen O, Huhta H, Lehenkari Petri P. Nucleic acid-sensing Toll-like receptors 3, 7 and 8 in esophageal epithelium, Barrett's esophagus, dysplasia and adenocarcinoma *Oncoimmunology* 2016-07-29 [PMID: 27467941]

de Barros De Luccia T, Ono E, Menon R et al. The effect of Gestational Diabetes Mellitus on the fetal compartment *Journal of Reproductive Immunology* 2021-03-01 [PMID: 33836321] (IHC-P, Human)

Li Y, Chen X, Jin R et al. Injectable hydrogel with MSNs/microRNA-21-5p delivery enables both immunomodification and enhanced angiogenesis for myocardial infarction therapy in pigs *Science advances* 2021-02-05 [PMID: 33627421] (WB, Mouse)

Chatillon JF Direct Toll-Like Receptor 8 signaling increases the functional avidity of human CD8+ T lymphocytes generated for adoptive T cell therapy strategies *Immun Inflamm Dis.* 2015-03-01 [PMID: 25866635] (FLOW, Human)

### Details:

Citation using the PE format of this antibody.

Menendez D, Snipe J, Marzec J et al. p53-responsive TLR8 SNP enhances human innate immune response to respiratory syncytial virus *J. Clin. Invest.* 2019-08-20 [PMID: 31430261] (FLOW)

Evankovich J, Lear T, Baldwin C et al. Toll-Like Receptor 8 Stability is Regulated by Ring Finger 216 in response to circulating MicroRNAs *Am. J. Respir. Cell Mol. Biol.* 2019-08-06 [PMID: 31385713]

Huhta H, Helminen O, Kauppila JH et al. The Expression of Toll-like Receptors in Normal Human and Murine Gastrointestinal Organs and the Effect of Microbiome and Cancer *J. Histochem. Cytochem.* 2016-08-01 [PMID: 27370795] (IHC-P, Human)

Deng G, Ge J, Liu C et al. Impaired expression and function of TLR8 in chronic HBV infection and its association with treatment responses during peg-IFN-a-2a antiviral therapy. *Clin Res Hepatol Gastroenterol.* [PMID: 28236535] (IF/IHC)

### Details:

Citation using the PE form of this antibody.

Helminen O, Huhta H, Kauppila JH et al. Localization of nucleic acid-sensing toll-like receptors in human and mouse pancreas. *APMIS.* 2016-12-28 [PMID: 28028829] (IF/IHC, Human)

Jeon YK, Kim CK, Koh J et al. Pellino-1 confers chemoresistance in lung cancer cells by upregulating cIAP2 through Lys63-mediated polyubiquitination. *Oncotarget.* 2016-07-05 [PMID: 27248820] (Cytometric Bead Assay Standard, Human)

More publications at <http://www.novusbio.com/NBP2-24917>



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General: novus@novusbio.com

### **Products Related to NBP2-24917**

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NBP2-26231-5mg	Imidazoquinoline Resiquimod (R-848), TLR7 and TLR8 ligand
HAF007	Goat anti-Mouse IgG Secondary Antibody [HRP]
NB720-B	Rabbit anti-Mouse IgG (H+L) Secondary Antibody [Biotin]
NBP1-43319-0.5mg	Mouse IgG1 Kappa Isotype Control (P3.6.2.8.1)

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### **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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