

# Product Datasheet

## TLR4 Antibody - BSA Free NB100-56580-0.1mg

Unit Size: 0.1 mg

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

[www.novusbio.com](http://www.novusbio.com)



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Updated 2/21/2025 v.20.1

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**NB100-56580-0.1mg**

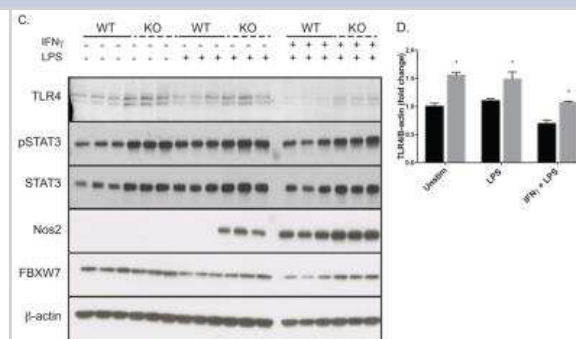
TLR4 Antibody - BSA Free

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	Polyclonal
Preservative	0.05% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	PBS
Target Molecular Weight	95.7 kDa
Product Description	
Host	Rabbit
Gene ID	7099
Gene Symbol	TLR4
Species	Human, Mouse, Rat, Rhesus Macaque
Reactivity Notes	Rat reactivity reported in scientific literature (PMID: 22427516)
Immunogen	This TLR4 antibody was developed against a sythetic peptide corresponding to amino acids in a range between 30-80 of mouse TLR4.
Product Application Details	
Applications	Western Blot, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin, Proximity Ligation Assay
Recommended Dilutions	Western Blot 2 - 5 ug/mL, Immunohistochemistry, Immunocytochemistry/ Immunofluorescence 2 - 5 ug/mL, Immunohistochemistry-Paraffin 5 ug/mL, Proximity Ligation Assay
Application Notes	This antibody was tested against partial recombinant mouse TLR4 (extracellular portion), and a 75-80 kDa band was observed. Full-length TLR4 is observed at approximately 90 kDa. Zager et al. 2006 (PMID: 16638912) observed TLR4 as an ~95 kDa doublet which is thought to represent different degrees of glycosylation. Presumptive TLR4 30 and 60 kDa cleavage fragments are described in Zager et al 2007 (PMID: 16885150). Use in PLA reported in scientific literature (PMID:33483465)

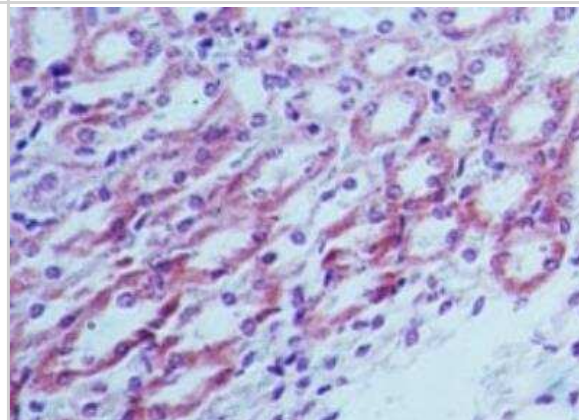


## Images

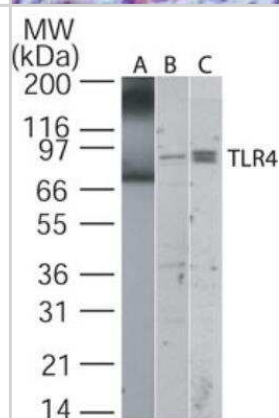
Western Blot: TLR4 Antibody [NB100-56580] - Immunoblot data examining response of primary macrophages from WT and miR-223 knockout mice (KO) to LPS and combined IFNG/LPS; 50ug of whole cell lysate was loaded per lane and run on a denaturing SDS PAGE gel. Densitometry and statistics are presented in (D). All values are expressed as +/- SEM; \* indicates  $p < 0.05$  via student t-test. Image collected and cropped by CiteAb from the following publication ([//doi.org/10.1371/journal.pone.0165962](https://doi.org/10.1371/journal.pone.0165962)) licensed under a CC-BY license.



Immunohistochemistry-Paraffin: TLR4 Antibody [NB100-56580] - Analysis of TLR4 in mouse kidney tissue using TLR4 antibody at 5 ug/mL.



Western Blot: TLR4 Antibody [NB100-56580] - Analysis of TLR4. (A) 1 ug/lane partial recombinant mouse TLR4 protein (antibody at 2 ug/mL) and (B) RAW cell lysate and (C) Daudi cell lysate (antibody at 5 ug/mL on tumor cell lysate).



## Publications

Niskanen J, Peltonen S, Ohtonen S et al. Uptake of alpha-synuclein preformed fibrils is suppressed by inflammation and induces an aberrant phenotype in human microglia. *Glia* 2024-10-22 [PMID: 39435593]

Xinshuang ZOU, Lei SHI, Hailong YIN, Haiping LI, Mengheng WANG, Wanci SONG, Laichun LUO, Hezhen WU, Yanfang YANG, Junfeng ZAN, Yanwen LIU, Hanxiong DAN, Qiang YIN, Pengtao YOU Compound Gaoziban tablet (复方高滋斑片) alleviates depression via toll-like receptor 4/myeloid differentiation factor 88/nuclear factor-kappa B pathway *Journal of Traditional Chinese Medicine* 2022-09-02 [PMID: 36378054]

Chiara Barisione, Daniela Verzola, Silvano Garibaldi, Paola Altieri, Anna Lisa Furfaro, Mariapaola Nitti, Giovanni Pratesi, Domenico Palombo, Pietro Ameri Indoxyl sulphate-initiated activation of cardiac fibroblasts is modulated by aryl hydrocarbon receptor and nuclear factor-erythroid-related factor 2 *Journal of Cellular and Molecular Medicine* 2024-03-20 [PMID: 38506079]

Li G, Makar T, Gerzanich V et al. HIV-1 Vpr-Induced Proinflammatory Response and Apoptosis Are Mediated through the Sur1-Trpm4 Channel in Astrocytes *mBio* 2020-12-22 [PMID: 33293383] (Immunohistochemistry, Western Blot, Block/Neutralize)

Hu D, Wang Y, You Z et al. Inc-MRGPRF-6:1 Promotes M1 Polarization of Macrophage and Inflammatory Response through the TLR4-MyD88-MAPK Pathway Mediators of inflammation 2022-01-28 [PMID: 35125964] (WB, Human)

Chaumonnot K, Masson S, Sikner H, et al. The HSP GRP94 interacts with macrophage intracellular complement C3 and impacts M2 profile during ER stress *Cell death & disease* 2021-01-22 [PMID: 33483465] (PLA, Human)

Xu X, Su Y, Wu K et al. DOCK2 contributes to endotoxemia-induced acute lung injury in mice by activating proinflammatory macrophages *Biochemical pharmacology* 2020-12-28 [PMID: 33382969]

Alanazi AM, Fadda L, Alhusaini A et al. Liposomal Resveratrol and/or Carvedilol Attenuate Doxorubicin-Induced Cardiotoxicity by Modulating Inflammation, Oxidative Stress and S100A1 in Rats *Antioxidants (Basel)* 2020-02-16 [PMID: 32079097] (IF/IHC, Rat)

Koh GY, Kane A, Lee K et al. Parabacteroides distasonis attenuates toll-like receptor 4 signaling and Akt activation and blocks colon tumor formation in high-fat diet-fed azoxymethane-treated mice *Int. J. Cancer* 2018-04-26 [PMID: 29696632] (WB, Mouse)

Perconti G, Maranto C, Romancino DP et al. Pro-invasive stimuli and the interacting protein Hsp70 favour the route of alpha-enolase to the cell surface. *Sci Rep.* 2017-06-19 [PMID: 28630480] (ICC/IF, Human)

Compare D, Rocco A, Coccoli P et al. Lactobacillus casei DG and its postbiotic reduce the inflammatory mucosal response: an ex-vivo organ culture model of post-infectious irritable bowel syndrome. *BMC Gastroenterol.* 2017-04-14 [PMID: 28410580] (WB, Human)

Deiuliis JA, Syed R, Duggineni D et al. Visceral Adipose MicroRNA 223 Is Upregulated in Human and Murine Obesity and Modulates the Inflammatory Phenotype of Macrophages. *PLoS ONE.* 2016-11-04 [PMID: 27812198] (WB, Mouse)

More publications at <http://www.novusbio.com/NB100-56580>



## Procedures

### **Immunocytochemistry/Immunofluorescence Protocol for TLR4 Antibody (NB100-56580)**

#### Immunocytochemistry Protocol

Culture cells to appropriate density in 35 mm culture dishes or 6-well plates.

1. Remove culture medium and wash the cells briefly in PBS. Add 10% formalin to the dish and fix at room temperature for 10 minutes.
2. Remove the formalin and wash the cells in PBS.
3. Permeablize the cells with 0.1% Triton X100 or other suitable detergent for 10 min.
4. Remove the permeablization buffer and wash three times for 10 minutes each in PBS. Be sure to not let the specimen dry out.
5. To block nonspecific antibody binding, incubate in 10% normal goat serum from 1 hour to overnight at room temperature.
6. Add primary antibody at appropriate dilution and incubate overnight at 4C.
7. Remove primary antibody and replace with PBS. Wash three times for 10 minutes each.
8. Add secondary antibody at appropriate dilution. Incubate for 1 hour at room temperature.
9. Remove secondary antibody and replace with PBS. Wash three times for 10 minutes each.
10. Counter stain DNA with DAPI if required.





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### **Products Related to NB100-56580-0.1mg**

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NBP2-25295-1.0mg	LPS from E. Coli, TLR4 ligand
NBP2-26244	TLR4 Inhibitor Peptide Set
HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control

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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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