

# Product Datasheet

## TLR4 Antibody (HTA125) - BSA Free NB100-56723

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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**NB100-56723**

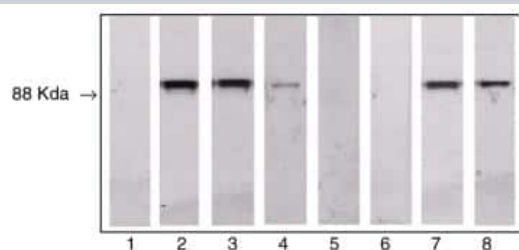
TLR4 Antibody (HTA125) - BSA Free

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	HTA125
Preservative	0.02% Sodium Azide
Isotype	IgG2a
Purity	Protein G purified
Buffer	PBS
Target Molecular Weight	95.7 kDa
Product Description	
Host	Mouse
Gene ID	7099
Gene Symbol	TLR4
Species	Human, Mouse, Canine
Reactivity Notes	Mouse reactivity reported in scientific literature (PMID: 28219705).
Immunogen	This TLR4 Antibody (HTA125) was developed by immunizing mice with Ba/F3 cell line expressing human TLR4 cell surface antigen.
Product Application Details	
Applications	Western Blot, Flow Cytometry, Flow (Cell Surface), Functional, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin, In vitro assay, Immunoprecipitation, Block/Neutralize, CyTOF-ready, Immunohistochemistry Whole-Mount
Recommended Dilutions	Western Blot 1 - 2 ug/ml. Use reported in scientific literature (PMID 28546218), Flow Cytometry 0.25 ug / 10 <sup>6</sup> cells, Immunohistochemistry, Immunocytochemistry/ Immunofluorescence reported in scientific literature (PMID 27744428), Immunoprecipitation 1:10-1:500, Immunohistochemistry-Paraffin reported in scientific literature (PMID 24529879), Functional reported in scientific literature (PMID 25412776), In vitro assay reported in scientific literature (PMID 24676500), Flow (Cell Surface) reported in scientific literature (PMID 17015691), Immunohistochemistry Whole-Mount reported in scientific literature (PMID 26610398), CyTOF-ready, Block/Neutralize

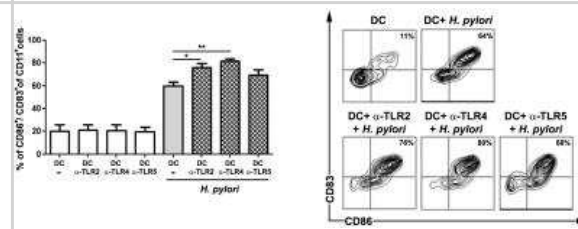


## Images

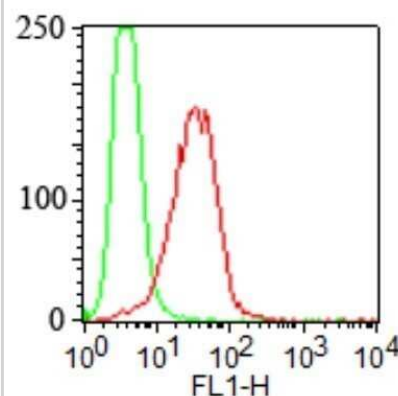
**Western Blot: TLR4 Antibody (HTA125) [NB100-56723]** - Untransfected 293T cells probed with the monoclonal antibody against TLR4 (NB100-56723, Lane 1), TLR4 transfected 293T cells probed with the TLR4 monoclonal antibody (Lane 2), and with antibodies affinity-purified against the celiac peptide (Lane 3). TLR4 transfected 293T cells probed with TLR4 monoclonal (biotin) antibody (Lane 4) and probed first with affinity-purified anti-peptide antibodies, followed by an incubation with biotin-labelled anti-TLR4 monoclonal antibody (Lane 5). Human plasmacytoid dendritic cells probed with TLR4 monoclonal antibody (Lane 6), human monocytes probed with TLR4 monoclonal antibody (Lane 7) and with affinity-purified anti-peptide antibodies (Lane 8). Image collected and cropped by CiteAb from the following publication ([//doi.org/10.1371/journal.pmed.0030358](https://doi.org/10.1371/journal.pmed.0030358)) licensed under a CC-BY license.



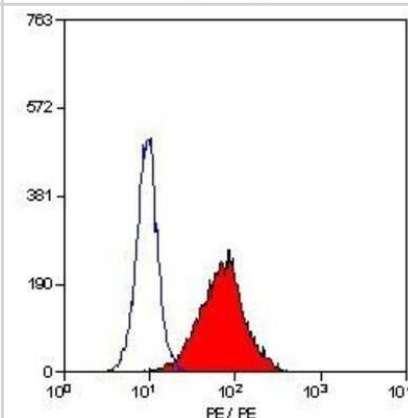
**Block/Neutralize: TLR4 Antibody (HTA125) [NB100-56723]** - Human monocyte-derived DCs were pre-incubated with TLR-neutralizing antibodies including TLR4 antibody (NB100-56723) for 1 h. Afterwards, DCs were infected with *H. pylori* G27 (MOI 5) and the levels of the costimulatory molecule CD86 and the maturation marker CD83 were analyzed by FACS on CD11c+ cells 24 h post-infection. Data are presented as mean  $\pm$  SD of five independent experiments. \* $p < 0.05$ , \*\* $p < 0.005$ , \*\*\* $p < 0.0005$ . Asterisks on top of bars indicate significance relative to non-neutralized, *H. pylori*-primed control cells. Image collected and cropped by CiteAb from the following publication ([//doi.org/10.1371/journal.pone.0104804](https://doi.org/10.1371/journal.pone.0104804)) licensed under a CC-BY license.



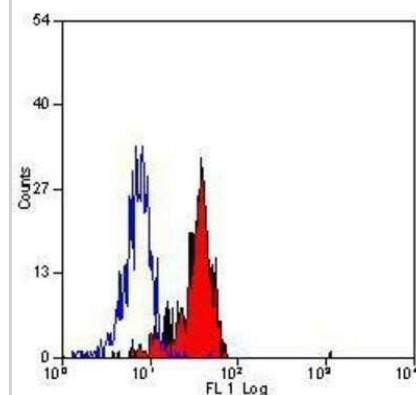
**Flow Cytometry: TLR4 Antibody (HTA125) [NB100-56723]** - Analysis using Azide/BSA FREE version of NB100-56727. Cell surface analysis of TLR4 in stable HEK293/hTLR4 cells using this antibody. Secondary antibody goat anti-mouse IgG-PE at 0.25ug/10<sup>6</sup> cells. Both stable HEK293/hTLR4 and HEK293/Vector cell lines were equally stained.



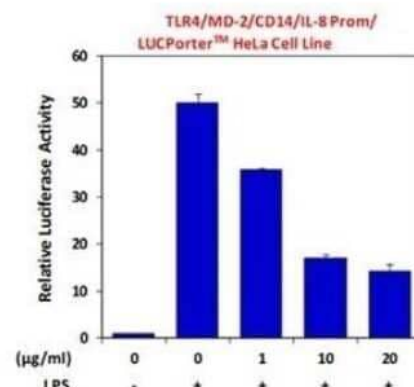
**Flow Cytometry: TLR4 Antibody (HTA125) [NB100-56723]** - Staining of U937 cells with mouse anti human CD284:RPE. Image using the PE form of this antibody.



Flow Cytometry: TLR4 Antibody (HTA125) [NB100-56723] - Analysis using Azide/BSA FREE version of NB100-56727. Staining of human peripheral blood monocytes with Mouse anti Human CD284.



Block/Neutralize: TLR4 Antibody (HTA125) [NB100-56723] - Validation of the neutralizing effect of this antibody on TLR4 activity. The TLR4/MD-2/CD14/IL-8 Prom/LUCPorter HeLa cells were plated in 96-well white plates at  $1 \times 10^5$  cells/well. After 16 h, cells were preincubated with different amounts of this antibody for 1 h and then stimulated with 10 ng/ml LPS for 6 h. Luciferase activity was then directly analyzed using the one-step luciferase reporter assay reagent. Data Summary: It inhibited LPS-mediated TLR4 activity in the TLR4/MD-2/CD14/IL-8 Prom/LUCPorter cell line. Image using the Azide Free format of this antibody.



## Publications

Reeves KM, Song PN, Angermeier A et al. (18)F-FMISO PET Imaging Identifies Hypoxia and Immunosuppressive Tumor Microenvironments and Guides Targeted Evofosfamide Therapy in Tumors Refractory to PD-1 and CTLA-4 Inhibition Clinical Cancer Research 2022-01-15 [PMID: 34615724]

De-Huang Guo, Masaki Yamamoto, Caterina M. Hernandez, Hesam Khodadadi, Babak Baban, Alexis M. Stranahan Beige adipocytes mediate the neuroprotective and anti-inflammatory effects of subcutaneous fat in obese mice Nature Communications 2021-07-30 [PMID: 34330904]

Abbaszadeh F, Jorjani M, Joghataei MT et al. Astaxanthin ameliorates spinal cord edema and astrocyte activation via suppression of HMGB1/TLR4/NF- $\kappa$ B signaling pathway in a rat model of spinal cord injury Naunyn-Schmiedeberg's archives of pharmacology 2023-05-05 [PMID: 37145127] (WB, Rat)

Jung F, Staltner R, Baumann A et al. A Xanthohumol-Rich Hop Extract Diminishes Endotoxin-Induced Activation of TLR4 Signaling in Human Peripheral Blood Mononuclear Cells: A Study in Healthy Women International journal of molecular sciences 2022-10-21 [PMID: 36293555] (Func, Human)

Ji X, Zhang X et al The Heparin-Binding Hemagglutinin of *Nocardia cyriacigeorgica* GUH-2 Stimulates Inflammatory Cytokine Secretion Through Activation of Nuclear Factor  $\kappa$ B and Mitogen-Activated Protein Kinase Pathways via TLR4 Front Cell Infect Microbiol 2020-03-03 [PMID: 32117792] (WB, Human)

Details:

Citation using the Azide Free version of this antibody.

Zanoni G, Navone R, Lunardi C et al. In Celiac Disease, a Subset of Autoantibodies Against Transglutaminase Binds Toll-Like Receptor 4 and Induces Activation of Monocytes PLoS Med 2006-09-01 [PMID: 16984219] (B/N, WB, Human)

Ji X, Zhang X, Li H et al. Nfa34810 facilitates *Nocardia farcinica* invasion of host cells and stimulates TNF- $\alpha$  secretion through activation of the NF- $\kappa$ B and MAPK pathways via TLR4 Infect Immun. [PMID: 31964749] (ELISA, Mouse)

The E, Yao Q, Zhang P et al. Mechanistic Roles of Matrilin-2 and Klotho in Modulating the Inflammatory Activity of Human Aortic Valve Cells Cells. [PMID: 32046115] (WB, Human)

Xu S, Koldovsky U, Xu M et al High-avidity antitumor T-cell generation by toll receptor 8-primed, myeloid- derived dendritic cells is mediated by IL-12 production. Surgery. 2006-08-01 [PMID: 16904966]

Details:

Citation using the Azide Free version of this antibody.

Yang X, Fullerton DA, Su X et al Pro-osteogenic phenotype of human aortic valve interstitial cells is associated with higher levels of Toll-like receptors 2 and 4 and enhanced expression of bone morphogenetic protein 2. J Am Coll Cardiol. 2009-02-10 [PMID: 19195606]

Details:

Citation using the Azide Free version of this antibody.

Komine-Aizawa S, Hirohata N, Aizawa S, Abiko Y Porphyromonas gingivalis lipopolysaccharide inhibits trophoblast invasion in the presence of nicotine. Placenta. 2015-01-01 [PMID: 25468545] (FLOW, Human)

Details:

Citation using the PE version of this antibody.

Akhter N, Madhoun A, Arefanian H et al Oxidative Stress Induces Expression of the Toll-Like Receptors (TLRs) 2 and 4 in the Human Peripheral Blood Mononuclear Cells: Implications for Metabolic Inflammation Cell. Cell Physiol Biochem. 2019-01-01 [PMID: 31162913] (FLOW, Human)

Details:

Citation using the PE version of this antibody.

More publications at <http://www.novusbio.com/NB100-56723>





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### **Products Related to NB100-56723**

NBP2-25295-1.0mg	LPS from E. Coli, TLR4 ligand
NBP2-26244	TLR4 Inhibitor Peptide Set
HAF007	Goat anti-Mouse IgG Secondary Antibody [HRP]
NB720-B	Rabbit anti-Mouse IgG (H+L) Secondary Antibody [Biotin]
NBP1-96778	Mouse IgG2a Isotype Control (M2A)

### **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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