

Product Datasheet

TLR4 Antibody (HTA125) - Azide Free NB100-56727

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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Updated 11/15/2017 v.20.1

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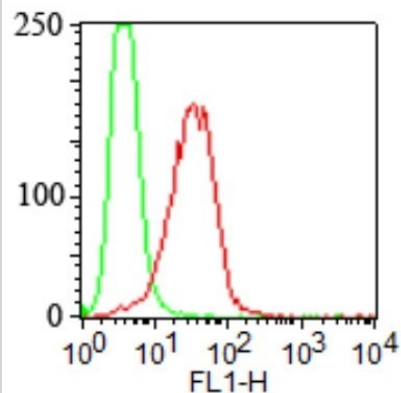
NB100-56727

TLR4 Antibody (HTA125) - Azide Free

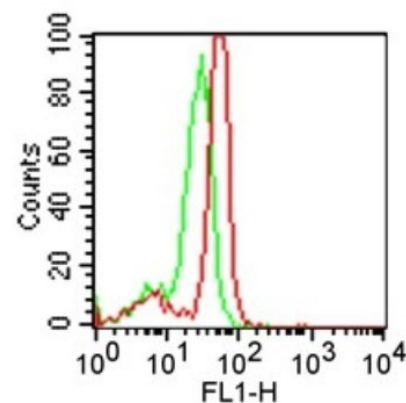
Product Information	
Unit Size	0.1 mg
Concentration	Please see the vial label for concentration. If unlisted please contact technical services.
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	HTA125
Preservative	No Preservative
Isotype	IgG2a
Purity	Protein G purified
Buffer	Filter (0.2 micron) sterilized PBS
Product Description	
Host	Mouse
Gene ID	7099
Gene Symbol	TLR4
Species	Human, Canine
Reactivity Notes	Cross reacts with Human and Dog.
Specificity/Sensitivity	The has been shown to block the activation of monocytes with LPS (Paik, et al, 2003).
Immunogen	This antibody was developed by immunizing mice with Ba/F3 cell line expressing human TLR4 cell surface antigen.
Product Application Details	
Applications	Western Blot, Blocking/Neutralizing, Flow Cytometry, Flow (Cell Surface), Flow (Intracellular), Immunocytochemistry/Immunofluorescence, In vitro assay, Immunoprecipitation, CyTOF-ready
Recommended Dilutions	Western Blot, Flow Cytometry 1ul/1 million cells, Immunocytochemistry/Immunofluorescence 1:10 - 1:2000, Immunoprecipitation 1:10 - 1:500, In vitro assay, Blocking/Neutralizing, Flow (Cell Surface), Flow (Intracellular), CyTOF-ready
Application Notes	Confocal Microscopy: see Scheel et al. (2006) for details FA (Neutralization): please Basek et al, 2005 for details. Flow (Cell Surface): 2-5 ug/ 1x10 ⁶ cells IF/ICC: please see Schneeman et al (2005) for details. IP: please see Shimazu et al, 1999 for details Use in vitro assays and blocking/ neutralizing reported in scientific literature (PMID 24512642). Use in Western blot reported in scientific literature (PMID 28546218).

Images

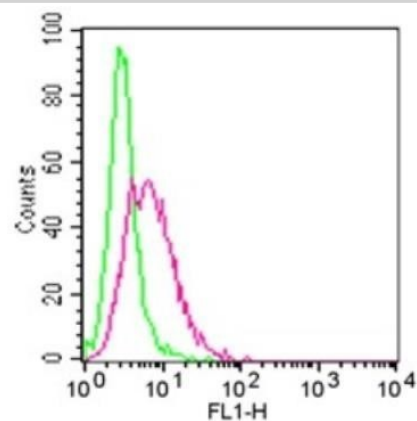
Flow Cytometry: TLR4 Antibody (HTA125) - Azide Free [NB100-56727] - Analysis using Azide/BSA FREE version of NB100-56727. Cell surface analysis of TLR4 in stable HEK293/hTLR4 cells using this antibody. Secondary antibody goat anti-mouse IgG-PE at 0.25ug/10⁶ cells. Both stable HEK293/hTLR4 and HEK293/Vector cell lines were equally stained.



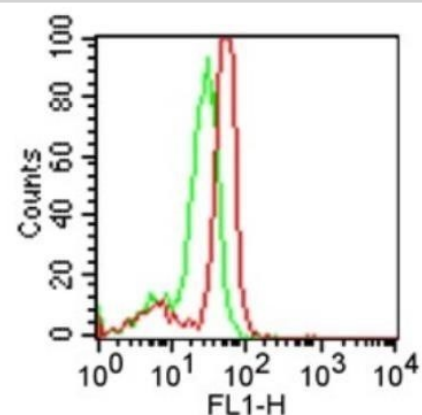
Flow (Cell Surface): TLR4 Antibody (HTA125) - Azide Free [NB100-56727] - Analysis using the Alexa Fluor (R) 488 conjugate of NB100-56727. Staining of TLR4 on PBMC using this antibody at 1 ug/10⁶ cells. Green represents isotype control this antibody; red represents anti-TLR4 antibody.



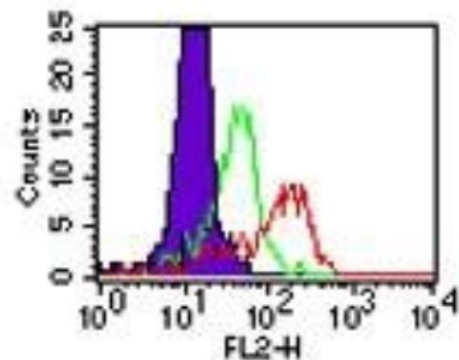
Flow (Cell Surface): TLR4 Antibody (HTA125) - Azide Free [NB100-56727] - Analysis using the Alexa Fluor (R) 647 conjugate of NB100-56727. Staining of TLR4 in stable HEK293/hTLR4 cells using this antibody at 1ug/10⁶ cells. Green represents HEK293/Vector cells; red represents HEK293/hTLR4 cells.



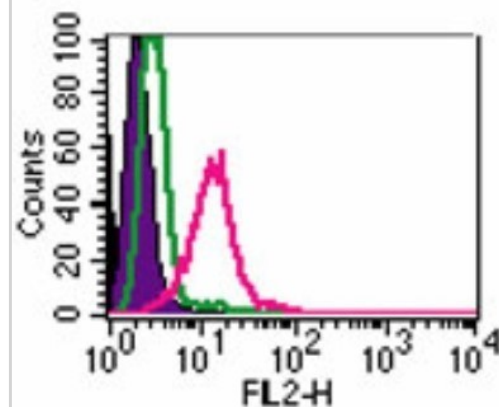
Flow (Cell Surface): TLR4 Antibody (HTA125) - Azide Free [NB100-56727] - Analysis using the Alexa Fluor (R) 647 conjugate of NB100-56727. Staining of TLR4 on PBMC using this antibody at 1 ug/10⁶ cells. Green represents isotype control this antibody; red represents anti-TLR4 antibody.



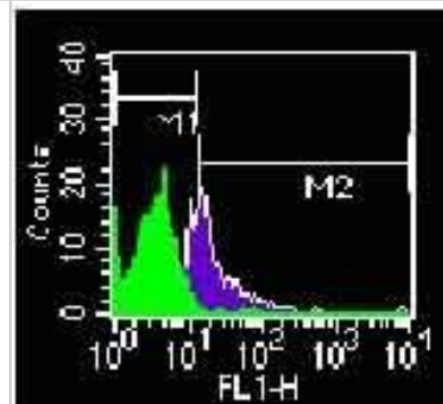
Flow (Intracellular): TLR4 Antibody (HTA125) - Azide Free [NB100-56727] - Analysis using the PE conjugate of NB100-56727. Staining of TLR4 in human PBMCs using NB100-56062 at 0.5 ug/10⁶ cells. The shaded histogram represents cells without anti-TLR4 antibody; green represents the isotype control; red represents the Nb100-56062, ant



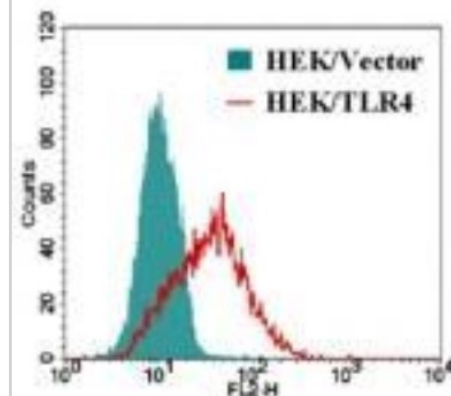
Flow (Cell Surface): TLR4 Antibody (HTA125) - Azide Free [NB100-56727] - Analysis using the PE conjugate of NB100-56727. Staining of TLR4 on ThP1 cells using TLR4 antibody at 2 ug/10⁶ cells. The shaded histogram represents ThP1 cells only, green represents isotype control antibody, and red represents TLR4 antibody.



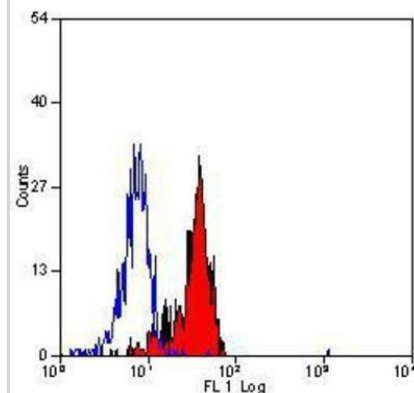
Flow Cytometry: TLR4 Antibody (HTA125) - Azide Free [NB100-56727] - Analysis using Azide/BSA FREE version of NB100-56727. Analysis of TLR4 using NB100-56723 on PBMCs at 2ug/ 1X10⁶ cells. M1 gate are unstained PBMC.



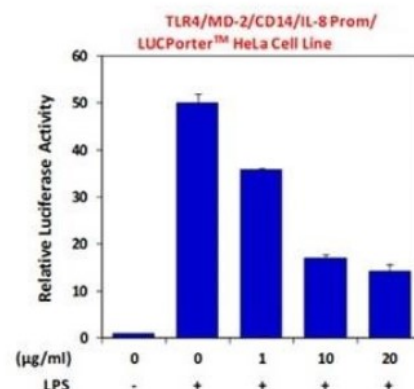
Flow Cytometry: TLR4 Antibody (HTA125) - Azide Free [NB100-56727] - Analysis using Azide/BSA FREE version of NB100-56727. Cell surface analysis of TLR4 in stable HEK293/hTLR4 cells using NB100-56723 at 1 ug/10⁶ cells. Secondary antibody Goat anti-Mouse IgG-PE at 0.25ug/10⁶ cells.



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



Blocking/Neutralizing: TLR4 Antibody (HTA125) - Azide Free [NB100-56727] - 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 1×10^5 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.



Publications

Li F, Song R, Ao L et al. ADAMTS5 Deficiency in Calcified Aortic Valves Is Associated With Elevated Pro-Osteogenic Activity in Valvular Interstitial Cells. *Arterioscler. Thromb. Vasc. Biol.* May 25 2017 12:00AM [PMID: 28546218] (B/N, WB, Human)

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*

Details:
#VALUE!

Jamin A, Dehoux L, Dossier C et al. Toll-like receptor 3 expression and function in childhood idiopathic nephrotic syndrome *Clin Exp Immunol* (FLOW, Human)

Details:
This publication used the FITC conjugated form of this antibody (Cat# NB100-56059).

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*

Details:
#VALUE!

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*

Details:
#VALUE!

Komine-Aizawa S, Hirohata N, Aizawa S, Abiko Y. Porphyromonas gingivalis lipopolysaccharide inhibits trophoblast invasion in the presence of nicotine Placenta et al (FLOW, Human)

Details:

This publication used the PE conjugated form of this antibody (Cat# NB100-56062).

Kabisch R, Mejias-Luque R, Gerhard M, Prinz C. Involvement of Toll-Like Receptors on Helicobacter pylori-Induced Immunity. PLoS ONE. 2014 Aug 26 [PMID: 25153703] (B/N, Human)

Details:

TLR4 antibody used for neutralization experiments at 5 ug/ml concentration (1 h incubation at 37C) on dendritic cells (DCs) generated from fresh blood samples that were taken from healthy volunteers.

Cognasse F, Hamzeh H, Chavarin P et al. Evidence of Toll-like receptor molecules on human platelets. Immunol Cell Biol. 2005 Apr [PMID: 15748217]

Details:

TLR2-PE (IMG-416D), TLR4-PE (IMG-417D), TLR6 (IMG-304A), TLR8-PE (IMG-321D), TLR9-PE (IMG-305D).

Applications: Intracellular Flow Cytometry and Cell Surface Flow Cytometry: Figs 1 and 2. A comparison of staining results, intracellular versus cell surface flow cytometry is shown. Cell type: Human platelets.

Rojas-Bernabe A, Garcia-Hernandez O, Maldonado-Bernal C et al. Leishmania mexicana lipophosphoglycan activates ERK and p38 MAP kinase and induces production of proinflammatory cytokines in human macrophages through TLR2 and TLR4. Parasitology 2014 Feb 05 [PMID: 24512642] (In vitro, B/N, Human)

Details:

Human macrophages, Figs 3,6.

Basak C, Pathak SK, Bhattacharyya A et al. NF-kappaB- and C/EBPbeta-driven interleukin-1beta gene expression and PAK1-mediated caspase-1 activation play essential roles in interleukin-1beta release from Helicobacter pylori lipopolysaccharide-stimulated macrophages. J Biol Chem. 2005 Feb 11 [PMID: 15561713] (Flow)

Details:

1. TLR4 (IMG-417E) [FA, Fig.7 (THP1 cells)].

Mempel M, Voelcker V, Köllisch G et al. Toll-like receptor expression in human keratinocytes: nuclear factor kappaB controlled gene activation by Staphylococcus aureus is toll-like receptor 2 but not toll-like receptor 4 or platelet activating factor receptor dependent. J Invest Dermatol. 2003 Dec [PMID: 14675188] (ICC/IF, Human)

Details:

1. TLR2 (IMG-416) 2. TLR4 (IMG-417) [IF/ICC, Fig.2A and 2D (human keratinocytes)].

Pietschmann K, Beetz S, Welte S et al. Toll-like receptor expression and function in subsets of human gammadelta T lymphocytes. Scand J Immunol. 2009 Sep [PMID: 19703014]

More publications at <http://www.novusbio.com/NB100-56727>



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Products Related to NB100-56727

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

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