

# Product Datasheet

## TLR9 Antibody - BSA Free NBP1-76680

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)



[technical@novusbio.com](mailto:technical@novusbio.com)

**Reviews: 1 Publications: 4**

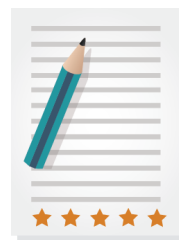
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Updated 10/23/2024 v.20.1

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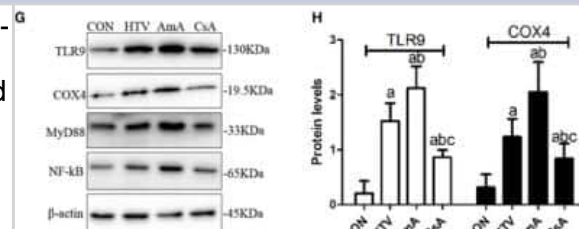
**NBP1-76680**

TLR9 Antibody - BSA Free

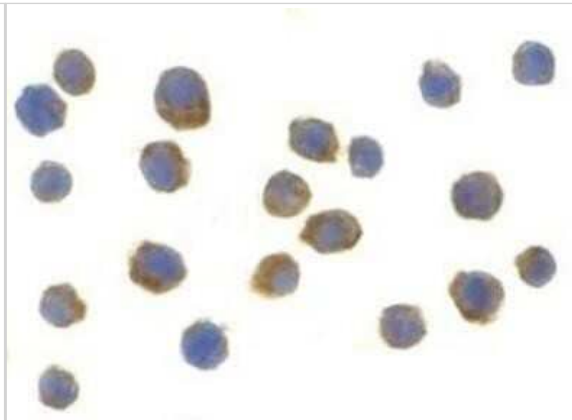
Product Information	
Unit Size	0.1 mg
Concentration	1 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.02% Sodium Azide
Isotype	IgG
Purity	Peptide affinity purified
Buffer	PBS
Target Molecular Weight	97 kDa
Product Description	
Host	Rabbit
Gene ID	54106
Gene Symbol	TLR9
Species	Human, Mouse, Rat
Specificity/Sensitivity	At least two isoforms of TLR9 are known to exist; this antibody will detect both isoforms. TLR9 antibody is predicted to not cross-react with other TLR proteins.
Immunogen	Antibody was raised against a peptide corresponding to 15 amino acids near the center of human TLR9. The immunogen is located within amino acids 840 - 890 of TLR9. Amino Acid Sequence: RGRQSGRDEDALPYD
Product Application Details	
Applications	Western Blot, ELISA, Immunocytochemistry/ Immunofluorescence
Recommended Dilutions	Western Blot 1 ug/ml, ELISA 1:100-1:2000, Immunocytochemistry/ Immunofluorescence 2-20 ug/mL

**Images**

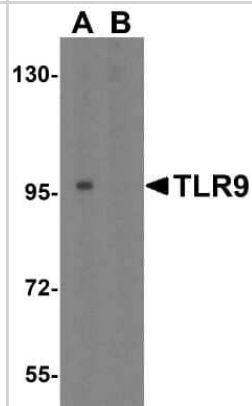
Western Blot: TLR9 Antibody [NBP1-76680] - (G) Levels of TLR9 (NBP1-76680), COX4 (NB110-39115), MyD88, and NF- $\kappa$ B protein by Western blot. (H) Relative expression of TLR9 and COX4 protein. Image collected and cropped by CiteAb from the following publication ([frontiersin.org/article/10.3389/fimmu.2018.01477/full](https://frontiersin.org/article/10.3389/fimmu.2018.01477/full)), licensed under a CC-BY license.



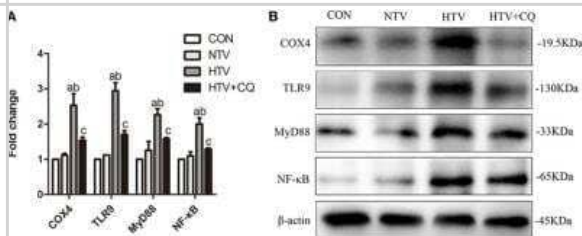
Immunocytochemistry/Immunofluorescence: TLR9 Antibody [NBP1-76680] - Jurkat cells with TLR9 antibody at 2 ug/ml.



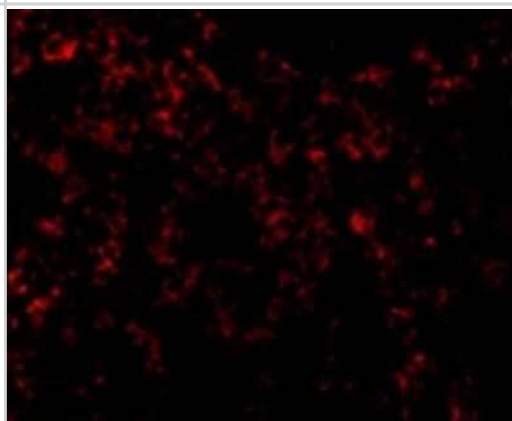
Western Blot: TLR9 Antibody [NBP1-76680] - Analysis of TLR9 in Jurkat cell lysate with TLR9 antibody at 1 ug/mL in (A) the absence and (B) the presence of blocking peptide



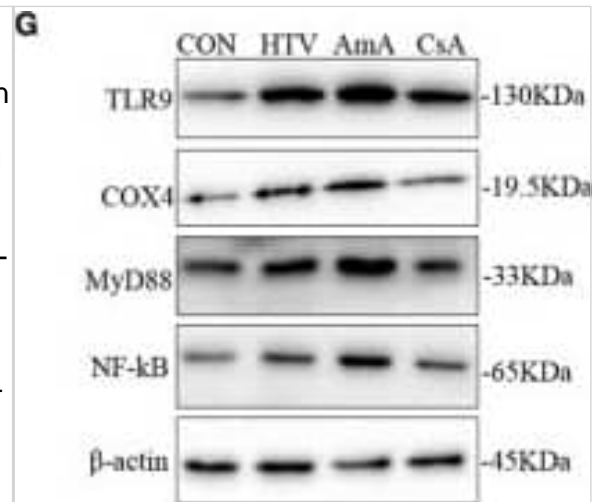
Western Blot: TLR9 Antibody [NBP1-76680] - (A) Levels of COX4 (NB110-39115), TLR9 (NBP1-76680), MyD88, and NF-kB mRNA. (B) Levels of COX4 (NB110-39115), TLR9 (NBP1-76680), MyD88, and NF-kB protein by Western blot. Image collected and cropped by CiteAb from the following publication ([frontiersin.org/article/10.3389/fimmu.2018.01477/full](https://frontiersin.org/article/10.3389/fimmu.2018.01477/full)), licensed under a CC-BY license.



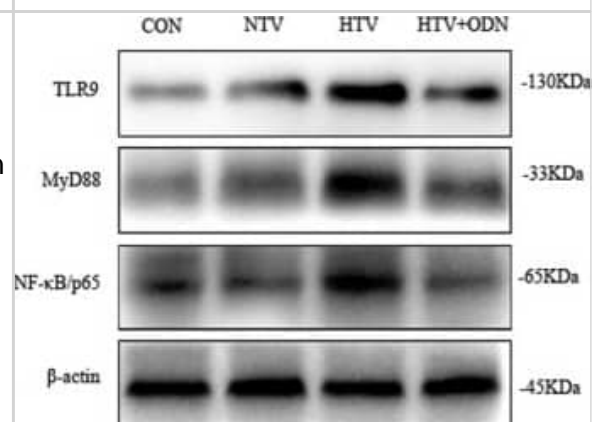
Immunocytochemistry/Immunofluorescence: TLR9 Antibody [NBP1-76680] - Mouse Spleen tissue.



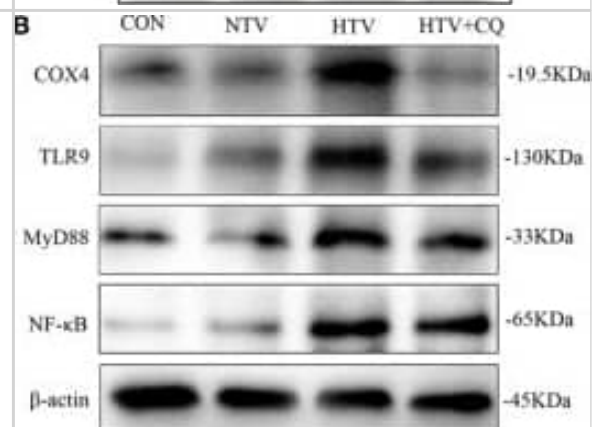
The expression levels of microtubule protein light chain 3 (LC3B), PTEN inducing putative kinase 1 (PINK1), Parkin, mitofusin 1 (Mfn1), toll-like receptor (TLR) 9, cytochrome c oxidase 4 (COX4), myeloid differentiation factor 88 (MyD88), & nuclear factor (NF)- $\kappa$ B in lung tissues from animals with spontaneous breathing (CON) or mechanical ventilation at high tidal volume (HTV) with saline, antimycin A (AmA) or cyclosporine A (CsA). (A) Levels of PINK1, Parkin, & Mfn1 mRNA. (B) Levels of LC3B, PINK1, Parkin, & Mfn1 protein by Western blot. (C) Relative expression of LC3B-II/LC3B-I & PINK1 protein. (D) Relative expression of Parkin & Mfn1 protein. (E) Levels of TLR9 & COX4 mRNA. (F) Levels of MyD88 & nuclear factor- $\kappa$ B (NF- $\kappa$ B) mRNA. (G) Levels of TLR9, COX4, MyD88, & NF- $\kappa$ B protein by Western blot. (H) Relative expression of TLR9 & COX4 protein. (I) Relative expression of MyD88 & NF- $\kappa$ B protein. Fold expression for target genes was normalized to that measured for the  $\beta$ -actin gene. Both of these experiments were in triplicate. aP < 0.05 vs. CON group; bP < 0.05 vs. HTV group; & cP < 0.05 vs. AmA group. Image collected & cropped by CiteAb from the following publication (<https://www.frontiersin.org/article/10.3389/fimmu.2018.01477/full>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Western Blot: TLR9 Antibody - BSA Free [NBP1-76680] - Levels of toll-like receptor (TLR) 9, myeloid differentiation factor 88 (MyD88), & nuclear factor (NF)- $\kappa$ B in lung tissues from animals with spontaneous breathing (CON), mechanical ventilation at normal tidal volume (NTV), high tidal volume (HTV), & ODN2088 pretreatment upon HTV stimulation (HTV + ODN). aP < 0.05 vs. CON group; bP < 0.05 vs. NTV group; & cP < 0.05 vs. HTV group. Image collected & cropped by CiteAb from the following publication (<https://www.frontiersin.org/article/10.3389/fimmu.2018.01477/full>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Western Blot: TLR9 Antibody - BSA Free [NBP1-76680] - The mRNA & protein expression of cytochrome c oxidase 4 (COX4), toll-like receptor (TLR) 9, myeloid differentiation factor 88 (MyD88), & nuclear factor (NF)- $\kappa$ B in lung tissues from spontaneous breathing group (CON group), normal tidal volume (NTV) group, high tidal volume (HTV) group, chloroquine (CQ) pretreatment upon HTV stimulation group (HTV + CQ). (A) Levels of COX4, TLR9, MyD88, & NF- $\kappa$ B mRNA. (B) Levels of COX4, TLR9, MyD88, & NF- $\kappa$ B protein by Western blot. (C) Relative expression of COX4, TLR9, MyD88, & NF- $\kappa$ B protein. Fold expression for target genes was normalized to that measured for the  $\beta$ -actin gene. Both of these experiments were in triplicate. aP < 0.05 vs. CON group; bP < 0.05 vs. NTV group; & cP < 0.05 vs. HTV group. Image collected & cropped by CiteAb from the following publication (<https://www.frontiersin.org/article/10.3389/fimmu.2018.01477/full>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



## Publications

Jing R, Hu ZK, Lin F et al. Mitophagy-Mediated mtDNA Release Aggravates Stretching-Induced Inflammation and Lung Epithelial Cell Injury via the TLR9/MyD88/NF- $\kappa$ B Pathway *Frontiers in Cell and Developmental Biology* 2020-09-04 [PMID: 33015037] (ELISA)

Lin JY, Jing R, Lin F et al. High Tidal Volume Induces Mitochondria Damage and Releases Mitochondrial DNA to Aggravate the Ventilator-Induced Lung Injury. *Front Immunol.* 2018-07-03 [PMID: 30018615] (WB, Rat)

Li W, Zhu S, Li J et al. Serum Amyloid A Stimulates PKR Expression and HMGB1 Release Possibly through TLR4/RAGE Receptors. *Mol Med* 2015-01-01 [PMID: 26052716]

Xu L, Wen Z, Zhou Y et al. MicroRNA-7-regulated TLR9 signaling-enhanced growth and metastatic potential of human lung cancer cells by altering the phosphoinositide-3-kinase, regulatory subunit 3/Akt pathway *Mol Biol Cell* 2013-01-01 [PMID: 23135998] (Human)





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### **Products Related to NBP1-76680**

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NBP1-76680PEP	TLR9 Antibody Blocking Peptide
NBP2-26232	CpG oligodeoxynucleotides with negative control, TLR9 ligand
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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