

## Product datasheet for **TA336410**

### TLR4 Mouse Monoclonal Antibody [Clone ID: 76B357.1]

#### Product data:

Product Type:	Primary Antibodies
Clone Name:	76B357.1
Applications:	Block/Neutralize, ChIP, CyTOF-ready, Dot, ELISA, FC, ICC/IF, IHC, SDS-PAGE, WB
Recommended Dilution:	SDS-Page, Knockdown Validated, Dot Blot, Flow (Cell Surface), Flow (Intracellular), Flow Cytometry, ELISA, Block/Neutralize, Knockout Validated, Chromatin Immunoprecipitation (ChIP): 1:10-1:500, In vitro assay, ELISA Capture (Matched Antibody Pair): 0.5 ug, Western Blot: 1-3 ug/ml, Immunocytochemistry/ Immunofluorescence: 1:10-1:500, Immunohistochemistry: 1:10-1:500, Immunohistochemistry-Paraffin: 5 ug/ml, Immunohistochemistry-Frozen: 1:500, CyTOF-ready, Dual RNAscope ISH-IHC
Reactivity:	Human, Mouse, Rat, Squirrel
Host:	Mouse
Isotype:	IgG2b, kappa
Clonality:	Monoclonal
Immunogen:	This antibody was developed against a portion of amino acids 100-200 of human TLR4 (NP_612564).
Formulation:	PBS containing 0.05% BSA, 0.05% Sodium Azide. Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Concentration:	lot specific
Purification:	Protein G purified
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	toll like receptor 4
Database Link:	<a href="#">NP_612564</a> <a href="#">Entrez Gene 21898 Mouse</a> <a href="#">Entrez Gene 29260 Rat</a> <a href="#">Entrez Gene 7099 Human</a> <a href="#">O00206</a>



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**Background:**

The Toll-like receptor (TLR) family in mammal comprises a family of transmembrane proteins characterized by multiple copies of leucine rich repeats in the extracellular domain and IL-1 receptor motif in the cytoplasmic domain. Like its counterparts in *Drosophila*, TLRs signal through adaptor molecules (1). The TLR family is a phylogenetically conserved mediator of innate immunity that is essential for microbial recognition (2). Ten human homologs of TLRs (TLR1-10) have been described (3). Among this family of receptors, TLR2 and TLR4 have been most studied. These studies have suggested that TLR2 and TLR4 may serve as potential main mediators of LPS signaling (4,5). The TLR4 cDNA codes for a protein consisting of 799 amino acids with approximate molecular weight of 88 kDa (6).

**Synonyms:**

ARMD10; CD284; TLR-4; TOLL

**Note:**

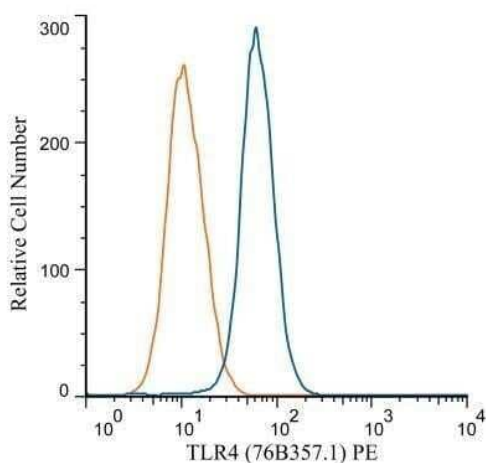
Flow (Intracellular) use reported in literature (See Cohen et al, 2008); Immunofluorescence (See Nowicki et al, 2009); IHC-F (Nowicki et al, 2012); Flow (cell surface) use reported in scientific literature (PMID 23796194)

**Protein Families:**

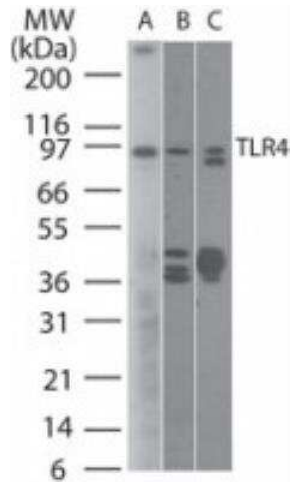
Druggable Genome, Transmembrane

**Protein Pathways:**

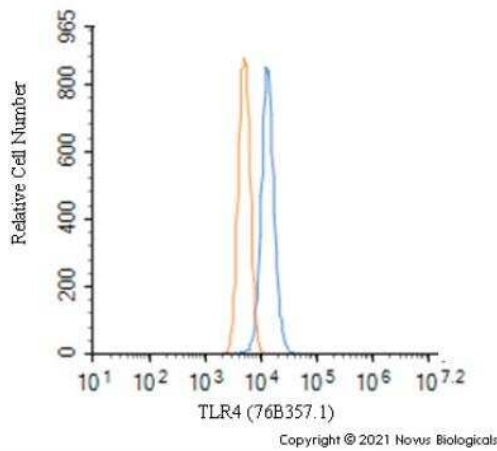
Pathogenic *Escherichia coli* infection, Toll-like receptor signaling pathway

**Product images:**

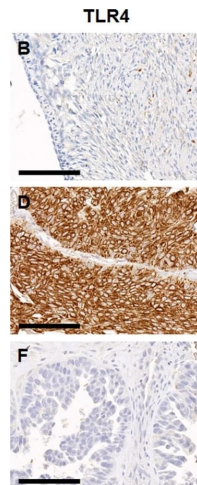
Flow (Intracellular): TLR4 Antibody (76B357.1) TA336410 - Analysis using PE conjugate of NBP2-27149. An intracellular stain was performed on Jurkat cells with TLR4 antibody (76B357.1) NBP2-27149PE (blue) and an isotype control MAB004 (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 2.5 ug/mL for 30 minutes at room temperature. Both antibodies were conjugated to phycoerythrin.



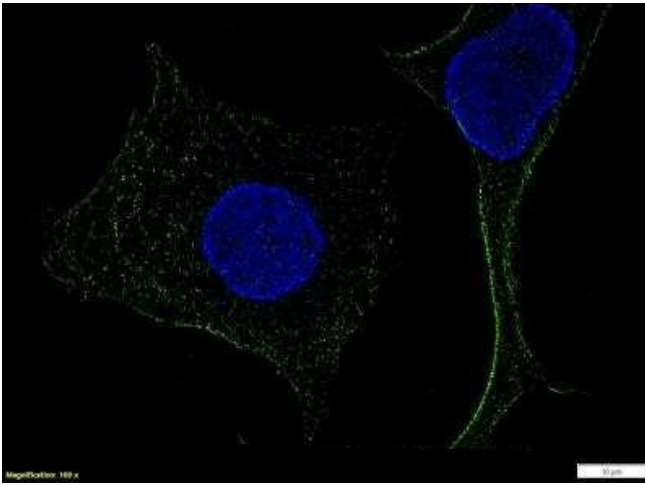
Western Blot: TLR4 Antibody (76B357.1)  
TA336410 - Analysis using 2 ug/mL on (A) human intestine and 6 ug/mL on (B) mouse intestine and (C) rat intestine lysate.



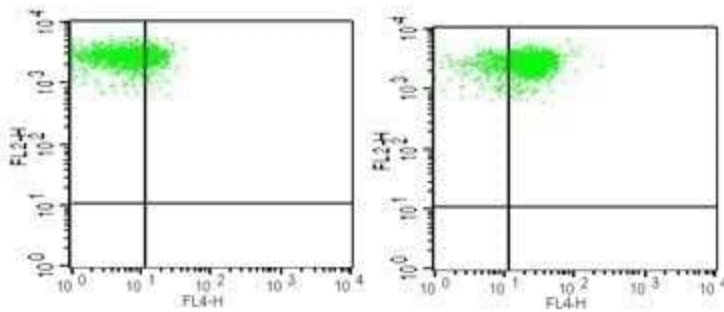
Flow Cytometry: TLR4 Antibody (76B357.1)  
TA336410 - An intracellular stain was performed on RH30 cells with TLR4 Antibody (76B357.1) TA336410 (blue) and a matched mouse IgG2b Kappa isotype control (orange) MAB004. Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 2.5 ug/mL for 30 minutes at room temperature, followed by Mouse IgG (H+L) Cross-Adsorbed Secondary Antibody, Dylight 550 (35503, Thermo Fisher).



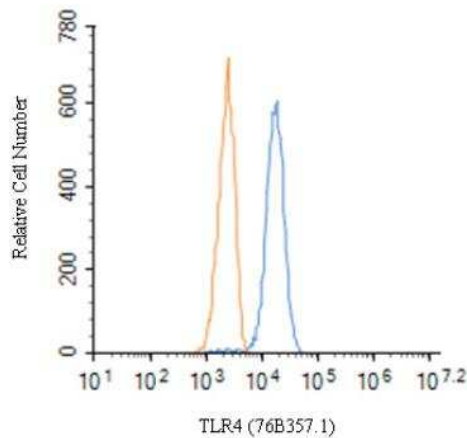
Representative images of immunohistochemical staining of pancreatic adenocarcinoma upregulated factor (PAUF) and toll-like receptor 4 (TLR4) in human ovarian cancer specimens. The top row (A,B) represents normal ovarian tissue, middle row (C,D) shows immunoreactivity of ovarian carcinomas and the bottom row (E,F) indicates immunonegativity of ovarian carcinoma. The stromal cells of normal ovarian tissue show immunonegativity for PAUF and TLR4. The scale bar represents 100 μm.



Immunocytochemistry/Immunofluorescence: TLR4 Antibody (76B357.1) TA336410 - RH-30 cells were fixed in 4% paraformaldehyde for 10 minutes and permeabilized in 0.05% Triton X-100 in PBS for 5 minutes. The cells were incubated with anti-TLR4 Antibody (76B357.1) TA336410 at 1 ug/ml overnight at 4C and detected with an anti-mouse Dylight 488 (Green) at a 1:1000 dilution for 60 minutes. Nuclei were counterstained with DAPI (Blue). Cells were imaged using a 100X objective and digitally deconvolved.

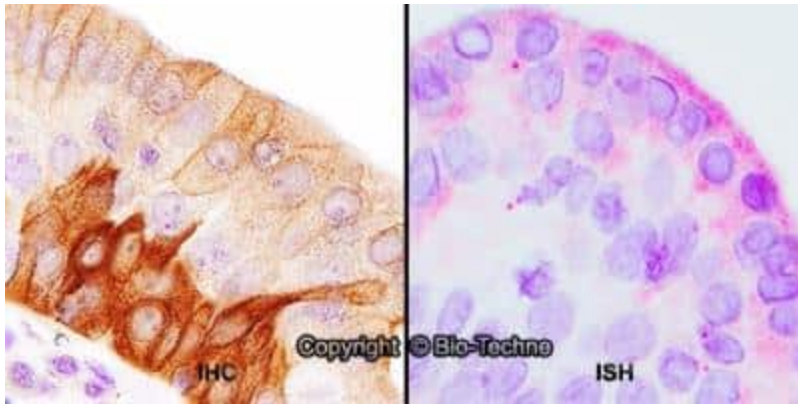


Flow Cytometry: TLR4 Antibody (76B357.1) TA336410 - Analysis using the Alexa Fluor (R) 647 conjugate of NBP2-27149. TLR4 expression on monocytes from human peripheral blood. PBMC were stained in a 2 color flow test, with CD14 PE version of this antibody and 1 ug of either isotype control (left) or TLR4-Alexa Fluor 647 (right). PPI negative, CD14+ cells were gated for analysis.

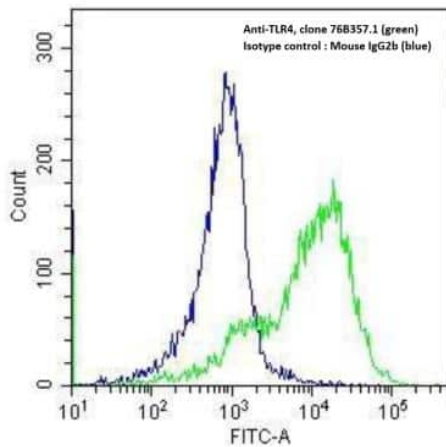


Flow Cytometry: TLR4 Antibody (76B357.1) TA336410 - An intracellular stain was performed on Jurkat cells with TLR4 Antibody (76B357.1) TA336410 (blue) and a matched mouse IgG2b Kappa isotype control (orange) MAB004. Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 2.5 ug/mL for 30 minutes at room temperature, followed by Mouse IgG (H+L) Cross-Adsorbed Secondary Antibody, Dylight 550 (35503, Thermo Fisher).

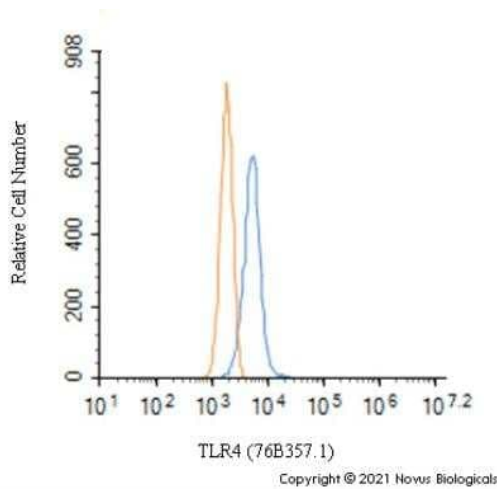
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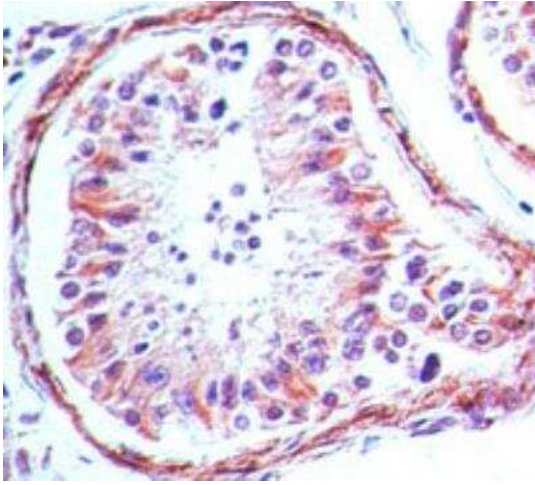
Dual RNAscope ISH-IHC: TLR4 Antibody (76B357.1) TA336410 - FFPE tissue sections of human tonsil were probed for TLR4 mRNA (ACD RNAscope Probe, ACD catalog # 311281; Fast Red chromogen, ACD catalog # 322750). Adjacent tissue section was processed for immunohistochemistry using Mouse Monoclonal (Novus Biologicals catalog # TA336410) at 5ug/mL with 1 hour incubation at room temperature followed by incubation with anti-mouse IgG VisUCyte HRP Polymer Antibody (Catalog # VC001) and DAB chromogen (yellow-brown). Tissue was counterstained with hematoxylin (blue). Specific staining was localized to lymphocytes.



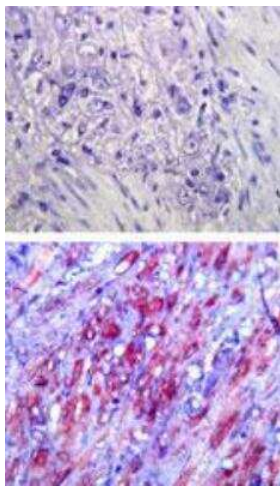
Flow Cytometry: TLR4 Antibody (76B357.1) TA336410 - Analysis of formaldehyde fixed THP-1 cells (human monocytic leukemia cells) using 2 ug/10<sup>6</sup> cells TLR4 antibody (clone 76B357.1) with detection employing a donkey anti-mouse IgG (H+L) cross adsorbed secondary antibody, (DyLight 488 conjugated). Isotype control samples incubated with mouse IgG2b isotype control antibody were processed in parallel under the same assay conditions.



Flow Cytometry: TLR4 Antibody (76B357.1) TA336410 - An intracellular stain was performed on Raw264.7 cells with TLR4 Antibody (76B357.1) TA336410 (blue) and a matched mouse IgG2b Kappa isotype control (orange) MAB004. Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 2.5 ug/mL for 30 minutes at room temperature, followed by Mouse IgG (H+L) Cross-Adsorbed Secondary Antibody, DyLight 550 (35503, Thermo Fisher).



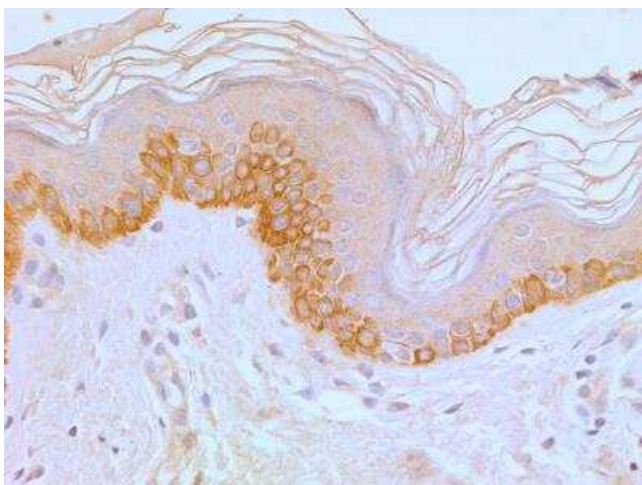
Immunohistochemistry-Paraffin: TLR4 Antibody (76B357.1) TA336410 - Human testis tissue stained with antibody at 5 ug/mL.



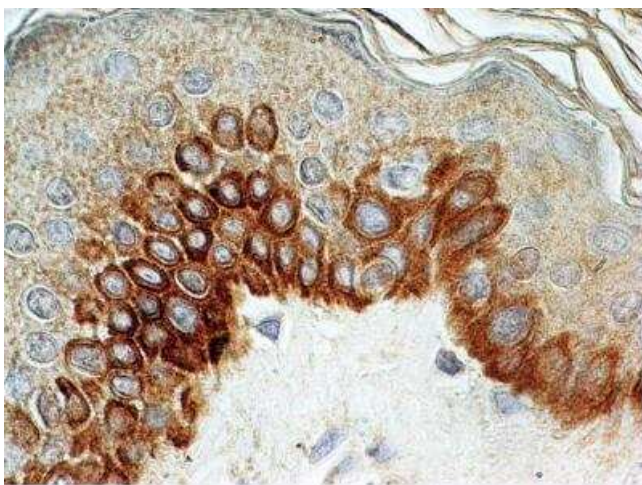
Immunohistochemistry-Paraffin: TLR4 Antibody (76B357.1) TA336410 - Analysis of TLR4 in FFPE human colon tissue using an isotype control (top) and TA336410 (bottom) at 5 ug/mL.



Immunohistochemistry-Paraffin: TLR4 Antibody (76B357.1) TA336410 - Analysis of rat salivary gland tissue section at 1:100 dilution. The antibody generated a membrane-cytoplasmic staining in the tissue with stronger signal in ductal epithelial cells.



Immunohistochemistry-Paraffin: TLR4 Antibody (76B357.1) TA336410 - Tissue section of normal human skin stained with antibody at 5 ug/mL. Membrane-cytoplasmic immunopositivity of TLR4 was primarily observed in the pigmented basal cells and the adjacent keratinocytes in the epidermal layer.



Immunohistochemistry-Paraffin: TLR4 Antibody (76B357.1) TA336410 - Human skin stained with at 5 ug/mL, peroxidase-conjugate and DAB chromogen. 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.