



Qty: 40 µg Antibody
100 µg Inhibitor Peptide

Rabbit x TLR3 + Peptide

Catalog No. 52-5147

Lot No. See Product Label

PolyFast™

Rabbit anti-TLR3 (Toll Like Receptor 3) and Inhibitor Peptide



ABOUT POLYFAST™

Invitrogen Laboratories produces PolyFast™ antibodies to rapidly provide the research community with “investigative grade” antibodies to timely, novel proteins with limited or no commercial availability at the time of their release. To ensure rapid availability, PolyFast™ antibodies are characterized only for their ability to bind specifically to their peptide immunogen. In contrast to Invitrogen’s “standard grade” antibodies, Invitrogen Laboratories, Inc. makes no additional claims regarding the performance of PolyFast™ antibodies in any application. Information on the performance of PolyFast™ antibodies in other applications will be posted on the Invitrogen web site (www.Invitrogen.com) as it becomes available.

FORM

Antibody

PolyFast™ antibody is supplied as a 200 µl aliquot at 0.2 mg/ml in phosphate buffered saline (pH 7.4) containing 0.1% sodium azide. The antibody is affinity-purified from rabbit antiserum by epitope-affinity chromatography.

Peptide

PolyFast™ inhibitor peptide is supplied as a 200 µl aliquot at 0.5 mg/ml in phosphate buffered saline (pH 7.4) containing 0.1% sodium azide.

POLYCLONAL ANTIBODY DESIGNATION (PAD): ZMD.21

IMMUNOGEN

A synthetic peptide derived from the N-terminus of human TLR3.

PREDICTED MOLECULAR WEIGHT: ~ 103.8 kDa

SPECIFICITY

PolyFast™ antibody reacts specifically with the immunizing peptide as determined by direct binding (by ELISA) to peptide conjugated to an irrelevant carrier protein.

REACTIVITY

This antibody is reactive with human. Cross reactivity to other species is unknown.

USAGE

Antibody

The utility of this antibody for applications other than direct ELISA has not been determined.

Working concentrations for specific applications should be determined by the investigator. Appropriate concentrations will be affected by several factors, including secondary antibody affinity, antigen concentration, sensitivity of detection method, temperature and length of incubations, etc. Typical starting amounts of antibody for common applications are given below.

ELISA: 0.1-1.0 µg/ml

(cont'd)

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Peptide

The included peptide is intended for use as an inhibitor of antibody binding to help distinguish between specific and non-specific binding of this *PolyFast* antibody. Typically, inhibitor and primary antibody are mixed in a blocking buffer (e.g., PBS pH 7.4 containing 3-5% non-fat dry milk or 0.1% BSA, and 0.1-0.2% Tween 20) and pre-incubated for 5-10 minutes prior to use.

Antibody Binding Inhibition: ~25x µg/ml per µg/ml antibody

STORAGE**Antibody and Peptide**

Store at 2-8°C for up to one month. Store at -20°C for long term storage. Avoid repeated freezing and thawing.

BACKGROUND

The **Toll Like Receptors (TLRs)** are the mammalian homologues of the *Drosophila* Toll transmembrane receptor. So far, nine members (TLR 1-9) have been reported. All TLRs contain an ectodomain with multiple leucine-rich repeats and a cytoplasmic domain homologous to that of the human interleukin-1 (IL-1) receptor. TLRs have been shown to participate in the recognition of pathogens by the innate immune system. Bacterial components cause an intracellular signaling cascade via TLRs that leads to the activation of NF-kappaB and c-Jun N-terminal kinase (JNK), which in turn, initiate the transcription of pro-inflammatory cytokine genes. TLRs and the downstream signaling pathway play an important role in innate immune recognition and in subsequent activation of adaptive immunity.

REFERENCES

1. Muzio, M., *et al.* Differential expression and regulation of toll-like receptors (TLR) in human leukocytes: selective expression of TLR3 in dendritic cells. *J. Immunol* 164 (11):5998-6004, (2000).
2. Ozinsky, A., *et al.* The repertoire for pattern recognition of pathogens by the innate immune system is defined by cooperation between Toll-like receptors. *PNAS* 97(25): 13766-13771, (2000).
3. Takeuchi, O. and S. Akira. Toll-like receptors: their physiological role and signal transduction system. *Int. Immunopharmacol.* 1(4): 625-635, (2001).
4. Xu, Y., *et al.* Structural basis for signal transduction by the Toll/interleukin-1 receptor domains. *Nature* 408: 111-115, (2000).

RELATED PRODUCTS

Product	Clone/PAD	Catalog No.
<i>PolyFast</i> Rabbit anti-TLR1 + Peptide	ZMD.20	52-5137
<i>PolyFast</i> Rabbit anti-TLR2 + Peptide	ZMD.32	52-5237
<i>PolyFast</i> Rabbit anti-TLR4 + Peptide	ZMD.33	52-5247
<i>PolyFast</i> Rabbit anti-TLR5 + Peptide	ZMD.24	52-5177
<i>PolyFast</i> Rabbit anti-TLR6 + Peptide	ZMD.22	52-5157
<i>PolyFast</i> Rabbit anti-TLR7 + Peptide	ZMD.23	52-5167
<i>PolyFast</i> Rabbit anti-TLR8 + Peptide	ZMD.25	52-5187
<i>PolyFast</i> Rabbit anti-TLR9 + Peptide	ZMD.26	52-5197
Mouse anti-NF-kappaB	2A12A7	33-9900
Rabbit anti- NF-kappaB	P65C	51-0500
Mouse anti-TNFr	4.12	33-0100
Rabbit anti-Fbx7	M87	51-8000

PAD: polyclonal antibody designation

Immunoassay reagents	Conjugate	Catalog No
Goat anti-Rabbit IgG (H+L) (ZyMAX™ Grade)	Purified	81-6100
	FITC	81-6111
	TRITC	81-6114
	Cy™3	81-6115
	Cy™5	81-6116
	HRP	81-6120
	AP	81-6122
	Biotin	81-6140
Protein A	Sepharose® 4B	10-1041
rec-Protein G	Sepharose® 4B	10-1241

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