Mouse TLR12 Antibody

Recombinant Monoclonal Rabbit IgG Clone # 1229C
Catalog Number: MAB8086

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse TLR12 in direct ELISAs.
Source	Recombinant Monoclonal Rabbit IgG Clone # 1229C
Purification	Protein A or G purified from cell culture supernatant
Immunogen	Chinese hamster ovary cell line CHO-derived recombinant mouse TLR12 Thr22-Lys709 Accession # Q6QNU9
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS.

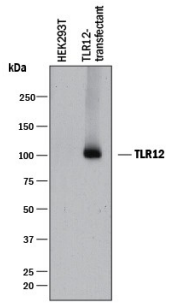
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	0.5 µg/mL	See Below
Flow Cytometry	0.25 µg/10^6 cells	See Below

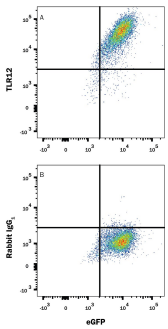
DATA

Western Blot



Detection of Mouse TLR12 by Western Blot. Western blot shows lysates of either HEK293T human embryonic kidney cell line mock transfected or HEK293T human embryonic kidney cell line transfected with mouse TLR12. PVDF membrane was probed with 0.5 µg/mL of Rabbit Anti-Mouse TLR12 Monoclonal Antibody (Catalog # MAB8086) followed by HRP-conjugated Anti-Rabbit IgG Secondary Antibody (Catalog # HAF008). A specific band was detected for TLR12 at approximately 100 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Flow Cytometry



Detection of TLR12 in HEK293 Human Cell Line Transfected with Mouse TLR12 and eGFP by Flow Cytometry. HEK293 human embryonic kidney cell line transfected with mouse TLR12 and eGFP was stained with and either (A) Rabbit Anti-Mouse TLR12 Monoclonal Antibody (Catalog # MAB8086) or (B) Normal Rabbit IgG Control (Catalog # AB-105-C) followed by Allophycocyanin-conjugated Anti-Rabbit IgG Secondary Antibody (Catalog # F0111).

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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BACKGROUND

Toll-like receptors (TLRs) are type I transmembrane proteins that activate the immune system in response to molecular patterns derived from microbial pathogens. Some TLRs are expressed on the cell surface (TLR1, 2, 4, 5, 6, 10), while others are found in endosomal structures (TLR3, 7, 8, 9, 11, 12, 13). TLRs contain a large number of leucine-rich repeats (LRRs) in their ectodomains and a cytoplasmic tail with one signal transducing Toll/IL-1 receptor (TIR) domain (1, 2). Mature mouse TLR12 is an approximately 100 kDa glycoprotein that consists of a 688 amino acid (aa) ectodomain with 17 LRRs, a 21 aa transmembrane segment, and a 176 aa cytoplasmic region (3). Within the ectodomain, mouse TLR12 shares 80% aa sequence identity with rat TLR12. TLR12 is expressed in dendritic cells, macrophages, and neurons, and in the uterus, liver, kidney, and bladder (3-6). It is up-regulated in the adipose tissue of obesity-prone ob/ob mice fed a high fat diet (7). The intracellular trafficking and sorting of several TLRs (including TLR12) is dependent on the endoplasmic reticulum resident protein UNC93B1 (8, 9). TLR12 can associate into homodimers as well as heterodimers with TLR11 (4). TLR11 can additionally heterodimerize with TLR3 and TLR7 (4, 8). TLR12 is required for the inflammatory response against uropathogenic bacteria and *Toxoplasma gondii* (3, 4). It directly binds Profilin from *T. gondii*, and it cooperates with TLR11 in protecting against *T. gondii* infection *in vivo* (4).

References:

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6. Hickey, D.K. *et al.* (2013) Innate Immun. **19**:121.
7. Kim, S.J. *et al.* (2012) J. Nutr. Biochem. **23**:113.
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