

Rabbit Polyclonal Anti-Phospho TICAM2 antibody

Catalog Number: PTRAM-140AP

Lot Number:

General Information

Product	Phospho-TICAM2 Antibody
Description	Phosphorylated TRIF-related adapter molecule Antibody
Accession #	Uniprot: Q86XR7 GenBank: AAO74498.1
Verified Applications	ELISA, IP, WB
Species Cross Reactivity	Human, Mouse
Host	Rabbit
Immunogen	Phosphorylated synthetic peptide corresponding to unique amino acid sequences on N-terminus TRIF-related adapter molecule protein.
Alternative Nomenclature	Putative NF-kappa-B-activating protein 502 antibody, TICAM2 antibody, TIRAP3 antibody, Toll-like receptor adaptor protein 3 antibody, TRAM antibody, TRIF-related adapter molecule antibody

Physical Properties

Quantity	100 µg
Volume	200 µl
Form	Affinity Purified Immunoglobulins
Immunoglobulin & Concentration	0.50 mg/ml IgG in antibody stabilization buffer
Determinant	N-terminus
Modification	Phosphorylated Serine 16 residue
Storage	Store at -20°C for long term storage.

Recommended Dilutions

DOT Blot	1:10,000
ELISA	1:10,000
Immunoprecipitation	1:200
Western Blot	1:500-1:750

Related Products

Catalog

BIOTIN-Conjugated	PTRAM-BIOTIN
FITC-Conjugated	PTRAM-FITC
Antigenic Blocking Peptide	P-PTRAM
Western Blot Positive Control	PC-PTRAM
Non-Phospho TICAM2 Antibody	TRAM-101AP

Overview:

The mammalian host defense system is essentially regulated by the Toll-like receptor (TLR) family. At least 10 TLRs have been identified and cloned in mammalian cells which recognize molecular products/signals from all the major classes of pathogens. The Toll signaling to NF-Kb starts from conserved Toll-IL-1-resistance (TIR) domain, which is mediated by the coupling of TIR adaptor molecules (MyD88, Mal, TICAM and TRAM). Most of the TLRs are dependent on the expression of adapter molecules MyD88 for all their function, the TLR3 and TLR4 are unique in their ability to mediate both MyD88-dependent and independent responses (1). The MyD88 independent pathway involves induction of a DC maturation and induction of type 1 interferon (IFN- β). TRIF-related adapter molecule (TRAM) also known as TICAM2, which like TRIF, activates IRF3 and IRF7. TRAM appears to be restricted to LPS activation (TLR4) pathway, compared to TRIF which play a role in both TLR3 and TLR4 pathways leading to IRF gene expression. TRAM may involve TLR4-specific signaling resulting in gene activation profile not shared by TLR3 pathways (2).

The TRAM/TICAM2 protein is located on chromosome 5q22. The TRAM/TICAM 2 is a 32-34 kDa protein (235 amino acid) comprised of a large Toll-interleukin 1 resistance (TIR) domain with a short (70 amino acid) N-terminal Serine/Threonine rich domain (TIR motif), and a 20 amino acid C-terminal end. The unique N-terminal end of TRAM/TICAM2 did not resemble those of TICAM1 however, the TIR and the C-terminal end are highly conserved in human and mouse TRAM/TICAM 2. There are subtle differences in the TIR domain of the TRAM/TICAM2 and other known adapters like TIRAP, MyD88, however, the N-terminal domain of TRAM/TICAM2 shared tandemly arranged basic amino acids and serine with that of TIRAP (3).

The TRAM/TICAM2-selective antibodies were generated against a synthetic peptide from unique region of the TRAM/TICAM2 protein sequence that is not present in other adapter molecules. These antibodies have been fully characterized for cross reactivity with other members of the TIR adapter molecules and with cellular proteins using Western blot analyses. Antigenic blocking peptides (P-PTRAM) and western blot positive controls (PC-PTRAM) are available. Antibodies can be conjugated to secondary enzymes or fluorophores upon request at nominal costs. For a complete listing of all FabGennix products and services please visit <http://fabgennix.com>.

References:

1. Oshiumi H., Matsumoto M., Funami K., Akazawa T., Seya T. TICAM 1, an adapter molecule that participates in the Toll Like receptor 3-mediated interferon-beta induction. Nat. Immunol. 4: 161-167; 2003.
2. LPS-TLR4 signals to IRF-3/7 and NF-kB involves the Toll Adapters TRAM and TRIF. J. Exptl. Med. 198 (7) 1043-1055, 2003.
3. Oshiumi H, Sasai M, Shida K, Fujita T, Matsumoto M, Seya T. TIR-containing adapter molecule (TICAM)-2, a bridging adapter recruiting to toll-like receptor 4 TICAM-1 that induces interferon-beta. J Biol Chem. 2003 Dec 12;278(50):49751-62. Epub 2003 Sep 30.

*For users who may require large amounts of the products listed above, please inquire about bulk material discounts.
This Product is for Research Use Only and is NOT intended for use in humans or clinical diagnosis.