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Anti-TRIF Antibody

Catalog # ABO12776

Product Information

Application	WB
Primary Accession	Q80UF7
Host	Rabbit
Reactivity	Mouse
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for TIR domain-containing adapter molecule 1(TICAM1) detection. Tested with WB in Mouse.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	106759
Other Names	TIR domain-containing adapter molecule 1, TICAM-1, Toll-interleukin-1 receptor domain-containing adapter protein inducing interferon beta, TIR domain-containing adapter protein inducing IFN-beta, Ticam1, Trif
Calculated MW	79230
Application Details	Western blot, 0.1-0.5 □g/ml, Mouse
Subcellular Localization	Cytoplasmic vesicle, autophagosome . Colocalizes with UBQLN1 in the autophagosome. .
Source	Eukaryota
Protein Name	TIR domain-containing adapter molecule 1
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of mouse TRIF (53-84aa QDTEARVSLESLKMNTVAQLVAHQWADMETTE), different from the related human sequence by twelve amino acids.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins
Storage	At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.

Protein Information

Name	Ticam1
Synonyms	Trif
Function	Involved in innate immunity against invading pathogens. Adapter used by TLR3, TLR4 (through TICAM2) and TLR5 to mediate NF- kappa-B and interferon-regulatory factor (IRF) activation, and to induce apoptosis (PubMed:12855817, PubMed:16002681, PubMed:21703541). Ligand binding to these receptors results in TRIF recruitment through its TIR domain (PubMed:12855817, PubMed:16002681, PubMed:21703541). Distinct protein-interaction motifs allow recruitment of the effector proteins TBK1, TRAF6 and RIPK1, which in turn, lead to the activation of transcription factors IRF3 and IRF7, NF-kappa-B and FADD respectively (PubMed:12855817, PubMed:16002681, PubMed:21703541). Phosphorylation by TBK1 on the pLxIS motif leads to recruitment and subsequent activation of the transcription factor IRF3 to induce expression of type I interferon and exert a potent immunity against invading pathogens (By similarity). Component of a multi-helicase- TICAM1 complex that acts as a cytoplasmic sensor of viral double- stranded RNA (dsRNA) and plays a role in the activation of a cascade of antiviral responses including the induction of pro-inflammatory cytokines (PubMed:21703541).
Cellular Location	Cytoplasm, cytosol. Cytoplasmic vesicle, autophagosome {ECO:0000250|UniProtKB:Q8IUC6} Mitochondrion. Note=Colocalizes with UBQLN1 in the autophagosome. Colocalizes in the cytosol with DDX1, DDX21 and DHX36 (PubMed:21703541). Colocalizes in the mitochondria with DDX1 and poly(I:C) RNA ligand (PubMed:21703541). The multi-helicase- TICAM1 complex may translocate to the mitochondria upon poly(I:C) RNA ligand stimulation (PubMed:21703541). {ECO:0000250|UniProtKB:Q8IUC6, ECO:0000269|PubMed:21703541}

Background

TICAM1 (TIR DOMAIN-CONTAINING ADAPTOR MOLECULE 1), also known as TRIF, is an adapter in responding to activation of toll-like receptors (TLRs). It mediates the rather delayed cascade of two TLR-associated signaling cascades, where the other one is dependent upon a MyD88 adapter. By genomic sequence analysis, Oshiumi et al. (2003) mapped the TICAM1 gene to chromosome 19p13.3. By coimmunoprecipitation analysis, Oshiumi et al. (2003) showed that TICAM1 interacts specifically with TLR3, but not with other TLRs. Functional analysis showed that the association of TLR3 and TICAM1 mediates dsRNA activation of IFNB, through NFKB, AP1, or IRF3. TICAM1 activation of NFKB was found to occur predominantly through IRAK1 rather than IRAK2. Small interfering (si)RNA blockage of TICAM1, just upstream of the TIR domain, reduced IFNB production in response to dsRNA.

Images

Anti- TRIF antibody, ABO12776, Western blottingAll lanes: Anti TRIF (ABO12776) at 0.5ug/mlLane 1: Mouse Brain Tissue Lysate at 50ugLane 2: Mouse Spleen Tissue Lysate at 50ugLane 3: Mouse Testis Tissue Lysate at 50ugLane 4: Mouse Liver Tissue Lysate at 50ugPredicted bind size: 76KDObserved bind size: 130KD



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