

Purified anti-TICAM-1 (TRIF) Antibody

Catalog# / Size	657102 / 100 µg
Clone	1H4B01
Regulatory Status	RUO
Other Names	TIR domain-containing adapter molecule 1, TRIF, MyD88-3, Proline-Rich, Vinculin And TIR Domain-Containing Protein B (PRVTIRB)
Isotype	Mouse IgG2a, κ
Description	TICAM-1, also known as TRIF, is an intracellular adaptor protein utilized by TLR3 and TLR4. TLR3 recognizes double stranded viral RNA and induces TICAM-1 mediated type I interferon production. The N-terminal region of TICAM-1 recruits TBK1 and IKK ϵ , which in turn phosphorylates the interferon regulatory transcription factor IRF3. The phosphorylated IRF3 is subsequently dimerized and translocates to the nucleus, resulting in transcriptional activation of the gene encoding IFN- β . Mice lacking in TICAM-1 expression are defective in the TLR3 mediated induction of proinflammatory cytokines, suggesting that TICAM-1 is crucial for TLR3 downstream signaling. TICAM-1 also mediates TLR4-induced signaling in the presence of the adaptor molecule TRAM. The C-terminal region of TICAM-1 recruits RIP1 and induces apoptosis through FADD/caspase cascade.

Product Details

Reactivity	Human, Mouse
Antibody Type	Monoclonal
Host Species	Mouse
Immunogen	Partial human TICAM-1 recombinant protein (29-204 a.a.)
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
Preparation	The antibody was purified by affinity chromatography.
Concentration	0.5 mg/ml
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C.
Application	WB - Quality tested ICC, IP - Verified
Recommended Usage	Each lot of this antibody is quality control tested by Western blotting . For Western blotting, the suggested use of this reagent is 0.1 - 1.0 µg per ml. For immunocytochemistry, a concentration of 5.0 µg/ml is recommended. For immunoprecipitation, the suggested use of this reagent is 2.0 - 10 µg per ml. It is recommended that the reagent be titrated for optimal performance for each application.
Product Citations	1. Liu Z, <i>et al.</i> 2021. Immunity. 54(2):247-258.e7. PubMed 2. Oldenburg R, <i>et al.</i> 2018. Front Immunol. 9:2. PubMed 3. Bhattacharjee P, <i>et al.</i> 2018. Sci Rep. 13:e0199785. PubMed
RRID	AB_2562543 (BioLegend Cat. No. 657102)

Antigen Details

Structure	712 amino acids, predicted molecular weight of 76 kD. Contains a Toll/interleukin-1 receptor (TIR) homology domain responsible for mediating protein-protein interactions.
Distribution	Cytosol, endosome membrane

Function	TICAM-1 acts as an adaptor protein of TLR3 and TLR4 (through TRAM), mediating innate immune responses during viral infection.
Interaction	TICAM-1 interacts with TLR3, TRAM, TBK1, IRF3, IRF7, TRAF3, TRAF6, and IKKi.
Biology Area	Cell Biology, Immunology, Innate Immunity, Neuroscience
Molecular Family	Toll Like Receptors
Antigen References	<ol style="list-style-type: none"> 1. Petnicki-Ocwieja T, <i>et al.</i> 2013. <i>Infect Immun.</i> 81:402. 2. Riad A, <i>et al.</i> 2011. <i>J. Immunol.</i> 186:2561. 3. Choi YJ, <i>et al.</i> 2010. <i>J. Biol. Chem.</i> 285:21382. 4. Gais P, <i>et al.</i> 2010. <i>J. Immunol.</i> 184:5842. 5. Han KJ, <i>et al.</i> 2010. <i>J. Biol. Chem.</i> 285:12543. 6. Takeda K and Akira S. 2005. <i>Int. Immunol.</i> 17:1.
Gene ID	148022

Related Protocols

[Immunocytochemistry Staining Protocol](#)

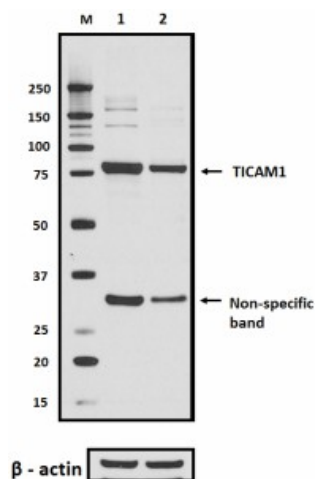
[Western Blotting Protocol](#)

[Immunoprecipitation Protocol](#)

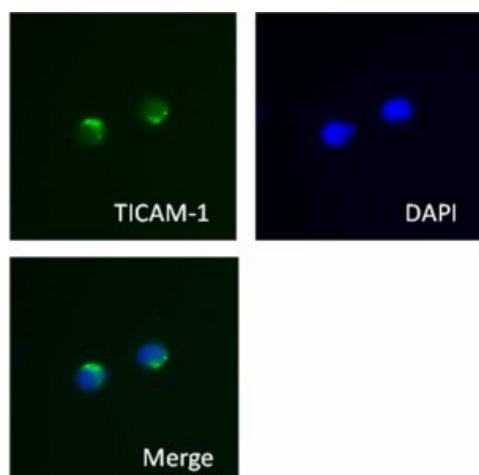
Other Formats

Purified anti-TICAM-1 (TRIF)

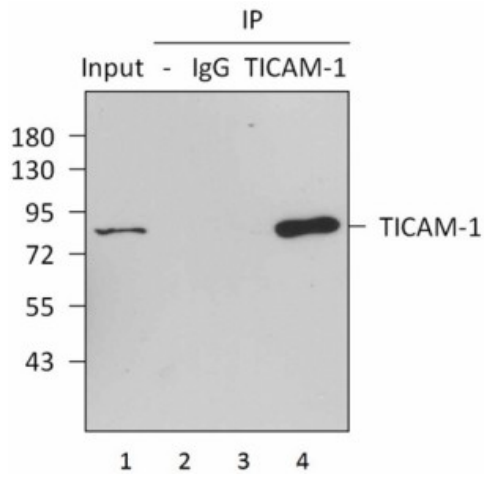
Product Data



Total lysates (15 μ g protein) from HepG2 (lane 1) and HeLa (lane 2) cells were resolved by electrophoresis (4-12% Bis-Tris gel), transferred to nitrocellulose, and probed with 1:500 diluted (1 μ g/mL) purified anti-TICAM-1 antibody (clone 1H4B01, upper). Proteins were visualized by chemiluminescence detection using a 1:3000 diluted HRP goat anti-mouse IgG secondary antibody for the anti-TICAM-1 antibody or 1:5000 diluted Direct-Blot™ HRP anti- β -actin antibody (clone 2F1-1, lower). Lane M: Molecular weight ladder.



Raji cells were stained with purified anti-TICAM-1 (clone 1H4B01) antibodies, followed by staining with DyLight™ 488 conjugated goat anti-mouse IgG (green) antibody. Nuclei were stained with DAPI (blue).



Immunoprecipitation of TICAM1 from Raji cell extracts. Lane 1 is 5% input. Immunoprecipitation was performed using protein G resins only (lane 2), mouse IgG isotype control (lane 3), and anti-TICAM1 antibody (clone 1H4B01, lane 4). Western blot was performed using anti-TICAM1 antibody (clone 1H4B01).

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8999 BioLegend Way, San Diego, CA 92121 www.biolegend.com
 Toll-Free Phone: 1-877-Bio-Legend (246-5343) Phone: (858) 768-5800 Fax: (877) 455-9587