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TRIAD3A Antibody

Catalog # ASC10261

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	Q9NWF9
Other Accession	AAP47174, 31324099
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	99406
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	TRIAD3A antibody can be used for detection of TRIAD3A by Western blot at 0.5 to 2 g/mL. Antibody can also be used for immunohistochemistry starting at 10 g/mL. For immunofluorescence start at 20 g/mL.

Additional Information

Gene ID	54476
Other Names	TRIAD3A Antibody: ZIN, CAHH, U7I1, TRIAD3, UBCE7IP1, ZIN, E3 ubiquitin-protein ligase RNF216, RING finger protein 216, ring finger protein 216
Target/Specificity	RNF216;
Reconstitution & Storage	TRIAD3A antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	TRIAD3A Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	RNF216
Synonyms	TRIAD3, UBCE7IP1, ZIN
Function	[Isoform 1]: E3 ubiquitin ligase which accepts ubiquitin from specific E2 ubiquitin-conjugating enzymes, and then transfers it to substrates promoting their ubiquitination (PubMed:34998453). Plays a role in the regulation of antiviral responses by promoting the degradation of TRAF3, TLR4 and TLR9 (PubMed:15107846, PubMed:19893624). In turn, down-regulates NF-kappa-B and IRF3 activation as well as beta interferon production. Also participates in

	the regulation of autophagy by ubiquitinating BECN1 leading to its degradation and autophagy inhibition (PubMed:25484083). Plays a role in ARC-dependent synaptic plasticity by mediating ARC ubiquitination resulting in its rapid proteasomal degradation (PubMed:24945773). Plays aso an essential role in spermatogenesis and male fertility (By similarity). Mechanistically, regulates meiosis by promoting the degradation of PRKACB through the ubiquitin-mediated lysosome pathway (By similarity). Modulates the gonadotropin-releasing hormone signal pathway by affecting the stability of STAU2 that is required for the microtubule-dependent transport of neuronal RNA from the cell body to the dendrite (By similarity).
Cellular Location	Cytoplasm. Cytoplasmic vesicle, clathrin-coated vesicle
Tissue Location	Ubiquitous, with the highest levels of expression in testis and peripheral blood leukocytes

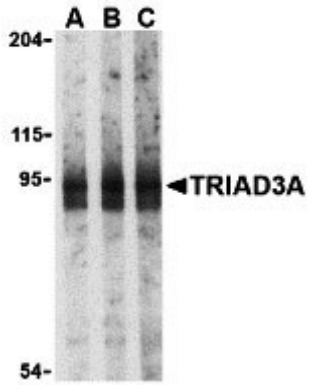
Background

TRIAD3A Antibody: Activation of NF-κB as a result of Toll-like receptor (TLR) and IL-1 receptor signaling is a major component of innate immune responses. Signals from these receptors are relayed by a number of adapter molecules such as TRIF, TIRAP, and MyD88. Several regulatory mechanisms exist to control TLR signal transduction, including the inhibition of TLR expression and signaling by molecules such as ST2 and SIGIRR. Another mechanism is by the ubi-quitinization of selected TLRs by TRIAD3A, an E3 ubiquitin-protein ligase. TRIAD3A is a RING finger protein that can bind to TLR4 and TLR9, and to a lesser extent TLR3 and TLR5, catalyzing the ubiquitization of these molecules. Overexpression of TRIAD3A promoted the nearly complete degradation of TLR4 and TLR9; this reduction was reflected in the decreased signal-specific activation by ligands specific for these TLRs. Conversely, depletion of TRIAD3A resulted in enhanced TLR activation.

References

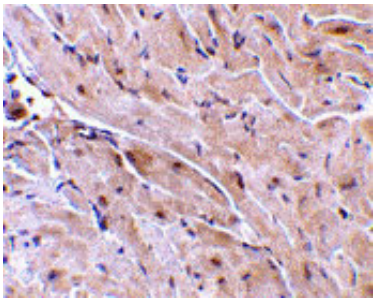
Takeda K, Kaisho T, and Akira S. Toll-like receptors. Annu. Rev. Immunol. 2003; 21:335-76.
Vogel SN, Fitzgerald KA, and Fenton MJ. TLRs: differential adapter utilization by toll-like receptors mediates TLR-specific patterns of gene expression. Mol. Interv. 2003; 3:466-77.
Sweet MJ, Leung BP, Kang D, et al. A novel pathway regulating lipopolysaccharide-induced shock by ST2/T1 via inhibition of Toll-like receptor 4 expression. J. Immunol. 2001; 166:6633-9.
Wald D, Qin J, Zhao Z, et al. SIGIRR, a negative regulator of Toll-like receptor-interleukin 1 receptor signaling. Nat. Immunol. 2003; 4:920-7.

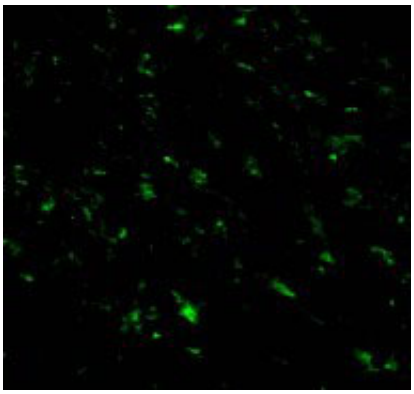
Images



Western blot analysis of TRIAD3A in mouse heart cell lysates with TRIAD3A antibody at (A) 0.5, (B) 1, and (C) 2 µg/mL.

Immunohistochemistry of TRIAD3A in mouse heart with TRIAD3A antibody at 10 µg/mL.





Immunofluorescence of TRIAD3A in Mouse Heart cells with TRIAD3A antibody at 20 µg/mL.