

### **TIFA Antibody (N-term)**

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP9587a

# **Specification**

### **TIFA Antibody (N-term) - Product Information**

Application WB,E
Primary Accession Q96CG3
Reactivity Human
Host Rabbit
Clonality Polyclonal
Isotype Rabbit IgG
Antigen Region 52-79

### TIFA Antibody (N-term) - Additional Information

### **Gene ID 92610**

#### **Other Names**

TRAF-interacting protein with FHA domain-containing protein A, Putative MAPK-activating protein PM14, Putative NF-kappa-B-activating protein 20, TRAF2-binding protein, TIFA, T2BP

# **Target/Specificity**

This TIFA antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 52-79 amino acids from the N-terminal region of human TIFA.

#### **Dilution**

WB~~1:2000

E~~Use at an assay dependent concentration.

#### **Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

### **Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

#### **Precautions**

TIFA Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

## TIFA Antibody (N-term) - Protein Information

Name TIFA {ECO:0000303|PubMed:12566447, ECO:0000312|HGNC:HGNC:19075}

**Function** Adapter molecule that plays a key role in the activation of pro-inflammatory NF-kappa-B signaling following detection of bacterial pathogen-associated molecular pattern metabolites



(PAMPs) (PubMed:12566447, PubMed:15492226, PubMed:26068852, PubMed:28222186, PubMed:28877472, PubMed:30111836). Promotes activation of an innate immune response by inducing the oligomerization and polyubiquitination of TRAF6, which leads to the activation of TAK1 and IKK through a proteasome-independent mechanism (PubMed:15492226, PubMed:26068852). TIFA-dependent innate immune response is triggered by ADP-D-glycerobeta-D-manno-heptose (ADP-Heptose), a potent PAMP present in all Gram- negative and some Gram-positive bacteria: ADP-Heptose is recognized by ALPK1, which phosphorylates TIFA at Thr-9, leading to TIFA homooligomerization and subsequent activation of pro-inflammatory NF- kappa-B signaling (PubMed:30111836).

#### **Cellular Location**

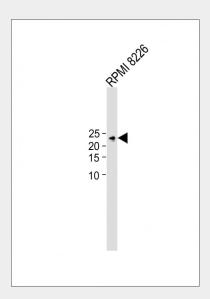
Cytoplasm. Note=Colocalizes with lysosomal marker LAMP2 following homooligomerization and subsequent activation

### **TIFA Antibody (N-term) - Protocols**

Provided below are standard protocols that you may find useful for product applications.

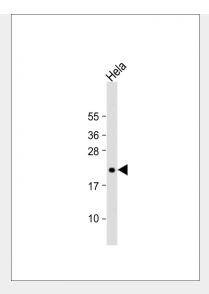
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

### TIFA Antibody (N-term) - Images



All lanes : Anti-TIFA Antibody (N-term) at 1:2000 dilution+ RPMI 8226 whole cell lysate Lysates/proteins at 20  $\mu$ g per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ASP1615) at 1/15000 dilution. Observed band size : 21kDa Blocking/Dilution buffer: 5% NFDM/TBST.





Anti-TIFA Antibody (N-term) at 1:2000 dilution + Hela whole cell lysate Lysates/proteins at 20  $\mu$ g per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 21 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

# TIFA Antibody (N-term) - Background

Adapter protein which mediates the IRAK1 and TRAF6 interaction following IL-1 stimulation, resulting in the downstream activation of NF-kappa-B and AP-1 pathways. Induces the oligomerization and polyubiquitination of TRAF6, which leads to the activation of TAK1 and IKK through a proteasome-independent mechanism.

# TIFA Antibody (N-term) - References

?Minoda, Y., et al. Biochem. Biophys. Res. Commun. 344(3):1023-1030(2006) ?Ea, C.K., et al. Proc. Natl. Acad. Sci. U.S.A. 101(43):15318-15323(2004) ?Matsuda, A., et al. Oncogene 22(21):3307-3318(2003) ?Takatsuna, H., et al. J. Biol. Chem. 278(14):12144-12150(2003)