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Datasheet for 600-401-GB2

ZBP1 Antibody

Overview

Description:	Anti-ZBP1 (RABBIT) Antibody - 600-401-GB2
Item No.:	600-401-GB2
Size:	100 µg
Applications:	ELISA, IF, IHC, WB
Reactivity:	Human, Mouse, Rat
Host Species:	Rabbit

Product Details

Background:	Z-DNA binding protein 1 (ZBP1) belongs to a family of proteins that contain the Zalpha domain which binds specifically to left-handed Z-DNA and Z-RNA. ZBP1 was initially identified as a novel gene that was up-regulated in activated macrophages in mice bearing ascites tumors, suggesting that is may play a role in processes such as host response in neoplasia. More recent reports indicate that the cytosolic ZBP1 has can act like the toll-like receptor TLR9 by detecting cytosolic double-stranded (ds) DNA and trigger induction of type I interferon and other innate immune responses. It is thought that the binding of ZBP1 to dsDNA enhances its association with innate immune response proteins such as the IRF3 transcription factor and the serine/threonine kinase TBK1 (also known as NAK). Multiple isoforms of ZBP1 are known to exist.
Synonyms:	ZBP1 Antibody, DAI, DLM1, DLM-1, C20orf183, Z-DNA-binding protein 1, Tumor stroma and activated macrophage protein DLM-1
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	ZBP1
Reactivity:	Human, Mouse, Rat
Immunogen Type:	Conjugated Peptide

Immunogen:	Anti-ZBP1 antibody was prepared from whole rabbit serum produced by repeated immunizations with a 18 amino acid synthetic peptide from near the C-terminus of human ZBP1. The immunogen is located within the last 50 amino acids of ZBP1.
Purity/Specificity:	Anti-ZBP1 Antibody was affinity purified from monospecific antiserum by immunoaffinity chromatography. Cross reactivity with ZBP1 from other sources has not been determined. Multiple isoforms of ZBP1 are known to exist.
Relevant Links:	• UniProtKB - Q9H171 • GeneID - 81030 • NCBI - NP_001153889.1

Application Details

Tested Applications:	ELISA, IF, IHC, WB
Application Note:	Anti-ZBP1 Antibody has been tested for use in ELISA, Western Blotting, Immunohistochemistry-P, and Immunofluorescence. Specific conditions for reactivity should be optimized by the end user. Expect a band at ~39, 45 kDa; Observed: 42 kDa in Western Blots of specific cell lysates and tissues. Positive control: mouse small intestine tissue, human small intestine tissue.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:5000 - 1:20,000
IF:	20 µg/mL
IHC:	2.5 µg/mL
WB:	0.5-2 µg/mL

Formulation

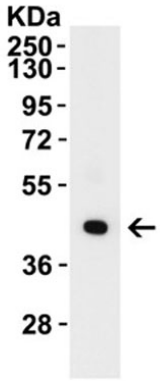
Physical State:	Liquid (sterile filtered)
Concentration:	1mg/ml by UV absorbance at 280 nm
Buffer:	0.01 M Sodium Phosphate, 0.25 M Sodium Chloride, pH 7.2
Preservative:	0.02% (w/v) Sodium Azide
Stabilizer:	None

Shipping & Handling

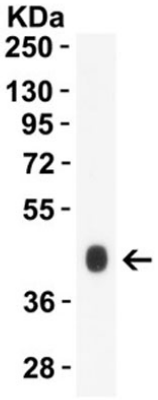
Shipping Condition:	Wet Ice

Storage Condition:	Antibody can be stored at 4°C up to one year. Antibodies should not be exposed to prolonged high temperatures.
Expiration:	Expiration date is one (1) year from date of receipt.

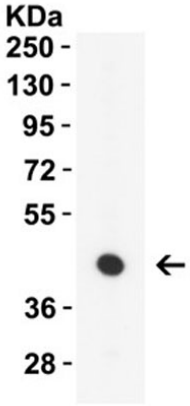
Images



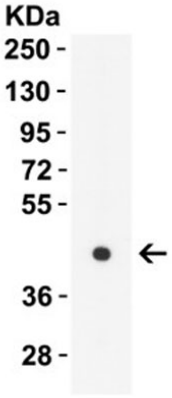
Western Blot
Western Blot of ZBP1.
Load: 10 µg of Human Tonsil lysate.
Primary Antibody: ZBP1 at 1 µg/mL for 1 h incubation at RT in 8% NFDM/TBST.
Secondary: Goat Anti-Rabbit IgG HRP conjugate at 1:10,000 dilution.



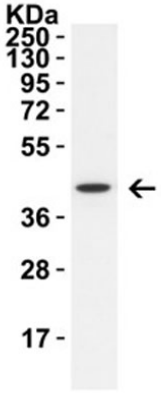
Western Blot
Western Blot of ZBP1.
Load: 10 µg of human brain lysates.
Primary Antibody: ZBP1 at 1 µg/mL for 1h incubation at RT in 8% NFDM/TBST.
Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10,000 dilution.



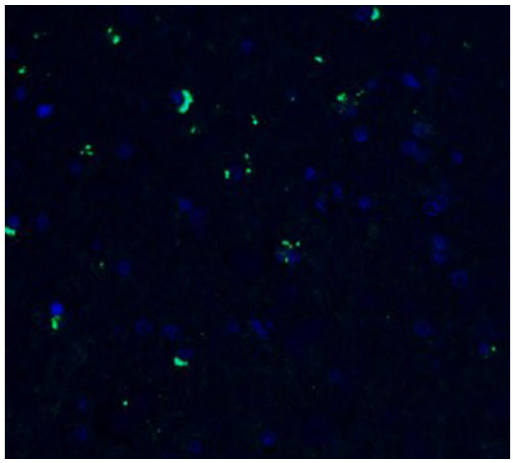
Western Blot
Western Blot of ZBP1.
Load: 10 µg of mouse brain lysates.
Primary Antibody: ZBP1 at 1 µg/mL for 1h incubation at RT in 5% NFDM/TBST.
Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10,000 dilution.



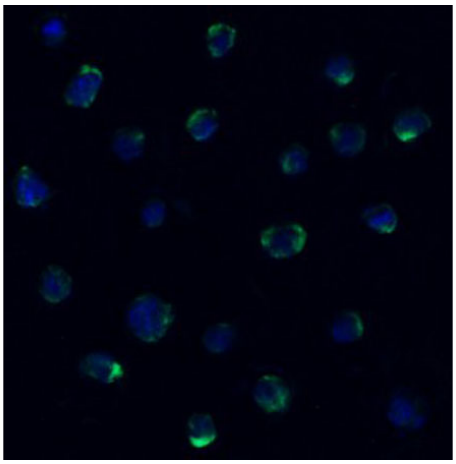
Western Blot
Western Blot of ZBP1.
Load: 10 µg of rat brain lysate.
Primary Antibody: ZBP1 at 1 µg/mL for 1 h incubation at RT in 8% NFDM/TBST.
Secondary: Goat Anti-Rabbit IgG HRP conjugate at 1:10,000 dilution.



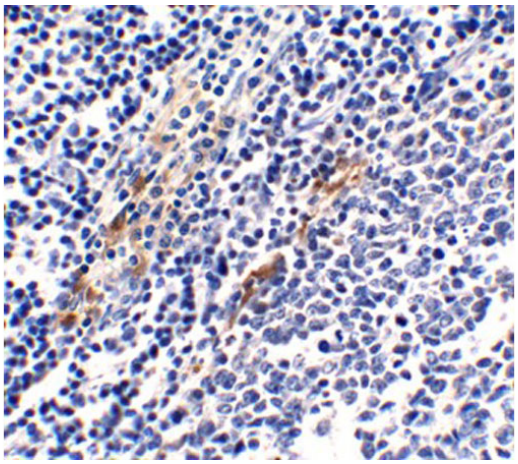
Western Blot
Western Blot of ZBP1.
Load: 10 µg of A549 cell lysate.
Primary Antibody: ZBP1 at 1 µg/mL for 1 h incubation at RT in 8% NFDM/TBST.
Secondary: Goat Anti-Rabbit IgG HRP conjugate at 1:10,000 dilution.



Immunofluorescence Microscopy
Immunofluorescence of ZBP1.
Tissue: Rat Brain.
Fixation: 4% paraformaldehyde-fixed.
Primary Antibody: ZBP1 at 20 µg/mL.
Secondary: goat anti-rabbit IgG secondary antibody at 1:500 dilution (green) and DAPI staining (blue).

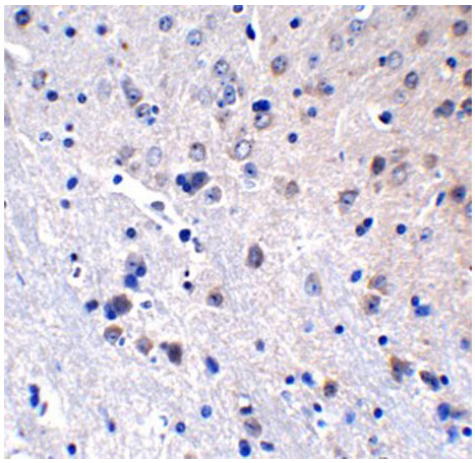


Immunofluorescence Microscopy
Immunofluorescence of ZBP1.
Cell: Human K562 Cells.
Fixation: 4% paraformaldehyde-fixed.
Primary Antibody: ZBP1 at 20 µg/mL.
Secondary: goat anti-rabbit IgG secondary antibody at 1:500 dilution (green) and DAPI staining (blue).



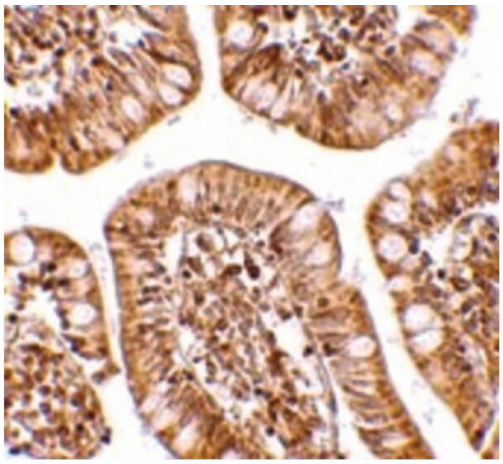
Immunohistochemistry
Immunohistochemistry of ZBP1.
Tissue: Human Tonsil.
Fixation: paraffin-embedded, fixed with formaldehyde and blocked with 10% serum for 1 h at RT.
Antigen Retrieval: heat mediation with a citrate buffer (pH6).

Primary Antibody: anti-ZBP1 antibody at 1 µg/mL overnight at 4°C.
Secondary: goat anti-rabbit IgG H&L (HRP) at 1:250 dilution.
Counter stained with Hematoxylin.

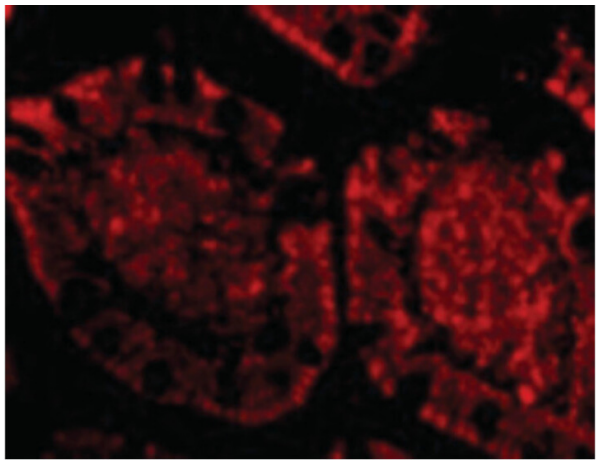


Immunohistochemistry
Immunohistochemistry of ZBP-1.
Tissue: Mouse Brain.
Fixation: paraffin-embedded, fixed with formaldehyde and blocked with 10% serum for 1 h at RT.
Antigen Retrieval: heat mediation with a citrate buffer (pH6).

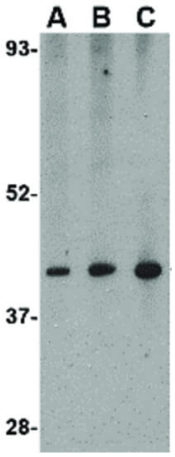
Primary Antibody: anti-ZBP1 antibody at 1 µg/mL overnight at 4°C.
Secondary antibody: goat anti-rabbit IgG H&L (HRP) at 1:250 dilution. Counter stained with Hematoxylin.



Immunohistochemistry
Immunohistochemistry of ZBP1 antibody. Tissue: Human small intestine tissue. Fixation: formalin fixed paraffin embedded. Antigen retrieval: not required. Primary antibody: ZBP1 antibody at 2.5 µg/mL for 1 h at RT. Secondary antibody: Peroxidase rabbit secondary antibody at 1:10,000 for 45 min at RT. Localization: ZBP1 is nuclear and occasionally cytoplasmic. Staining: ZBP1 as precipitated red signal with hematoxylin purple nuclear counterstain.



Immunofluorescence Microscopy
Immunofluorescence Microscopy ZBP1 antibody. Tissue: Human Small Intestine cells. Fixation: 0.5% PFA. Antigen retrieval: not required. Primary antibody: ZBP1 antibody at 20 µg/mL for 1 h at RT. Secondary antibody: Fluorescein rabbit secondary antibody at 1:10,000 for 45 min at RT. Staining: ZBP1 as a red fluorescent signal.



Western Blot

Western Blot of ZBP1 antibody. Lane A: Mouse small intestine tissue lysate at 0.5 µg/mL. Lane B: Mouse small intestine tissue lysate at 1 µg/mL.
Lane C: Mouse small intestine tissue lysate at 2 µg/mL. Load: 35 µg per lane. Secondary antibody: Peroxidase rabbit secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C. Predicted/Observed size: 14.3 kDa, ~42 kDa for ZBP1.

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