abcam

Product datasheet

Anti-TIA1 antibody [EPR22999-80] ab263945

KO VALIDATED Recombinant RabMAb

1 References 9 Images

Overview

Product name	Anti-TIA1 antibody [EPR22999-80]
Description	Rabbit monoclonal [EPR22999-80] to TIA1
Host species	Rabbit
Tested applications	**Suitable for:** Flow Cyt (Intra), IP, IHC-P, WB **Unsuitable for:** ICC/IF
Species reactivity	**Reacts with:** Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: Wild-type HAP1, Jurkat, HuT-78, MOLT-4, K562 and Human tonsil lysates. IHC-P: Human spleen, Human classical hodgkin lymphoma and Human gastric cancer tissues. Flow Cyt (intra): WT HAP1 and Jurkat cells. IP: Jurkat and HuT-78 cells.
General notes	This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR22999-80

Isotype IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab263945 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt (Intra)		1/600.
IP		1/30.
IHC-P		1/4000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
WB		1/1000. Predicted molecular weight: 43 kDa.

Application notes Is unsuitable for ICC/IF.

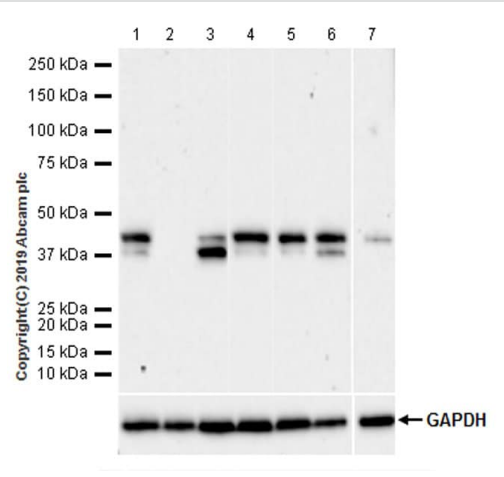
Target

Function Involved in alternative pre-RNA splicing and regulation of mRNA translation by binding to AU-rich elements (AREs) located in mRNA 3' untranslated regions (3' UTRs). Possesses nucleolytic activity against cytotoxic lymphocyte target cells. May be involved in apoptosis.

Sequence similarities Contains 3 RRM (RNA recognition motif) domains.

Cellular localization Cytoplasmic granule. Nucleus. Accumulates in cytoplasmic stress granules (SG) following cellular damage.

Images



Western blot - Anti-TIA1 antibody [EPR22999-80] (ab263945)

All lanes : Anti-TIA1 antibody [EPR22999-80] (ab263945) at 1/1000 dilution

Lane 1 : Wild-type HAP1 whole cell lysate

Lane 2 : TIA1 knockout HAP1 whole cell lysate

Lane 3 : Jurkat (human T cell leukemia T lymphocyte), whole cell lysate

Lane 4 : HuT-78 (human Sezary syndrome cutaneous T lymphocyte), whole cell lysate

Lane 5 : MOLT-4 (human lymphoblastic leukemia T lymphoblast), whole cell lysate

Lane 6 : K562 (human chronic myelogenous leukemia lymphoblast), whole cell lysate

Lane 7 : Human tonsil tissue lysate

Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/100000 dilution

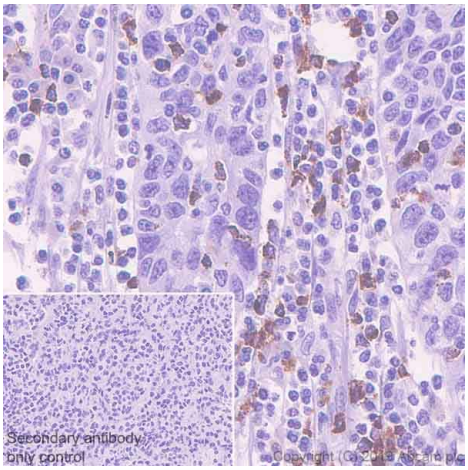
Predicted band size: 43 kDa
Observed band size: 42,43 kDa

Blocking and diluting buffer and concentration: 5% NFDM/TBST.

The molecular weight observed is consistent with what has been described in the literature (PMID:30533021).

ab263945 was shown to specifically react with TIA1 in wild-type HAP1 cells as signal was lost in TIA1 knockout cells. Wild-type and TIA1 knockout samples were subjected to SDS-PAGE. ab263945 and **ab181602** (Rabbit anti-GAPDH loading control) were incubated 1 hour at room temperature at 1/1000 dilution and 1/200,000 dilution respectively. Blots were developed with Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (**ab97051**) secondary antibody at 1/100,000 dilution for 1 hour at room temperature before imaging. The blot was developed on a BIO-RAD® ChemiDoc™ MP instrument using the ECL technique.

Exposure time: Lanes 1-3: 103 seconds Lane 4: 26 seconds Lanes 5-6: 103 seconds Lane 7: 3 minutes.



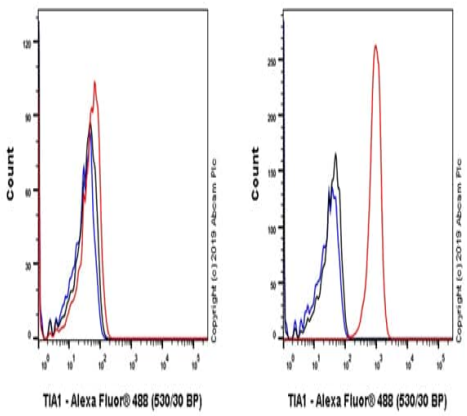
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TIA1 antibody [EPR22999-80] (ab263945)

Immunohistochemical analysis of paraffin-embedded Human gastric cancer tissue labeling TIA1 with ab263945 at 1/4000 dilution (0.15ug/ml) followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**). Positive staining in tumor-infiltrating T-lymphocytes of human gastric cancer (PMID: 10658910) is observed.

The section was incubated with **ab256492** for 15 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

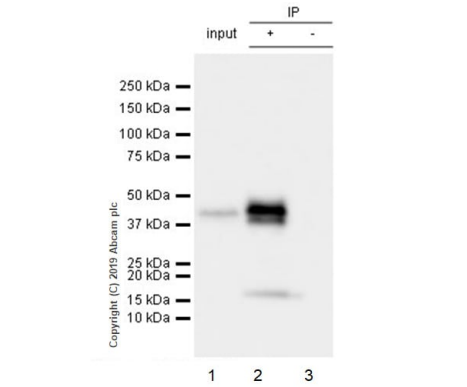
Secondary antibody only control: Secondary antibody is a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20 mins.



Flow Cytometry (Intracellular) - Anti-TIA1 antibody [EPR22999-80] (ab263945)

Intracellular flow cytometric analysis of 4% paraformaldehyde fixed, 90% methanol permeabilized TIA1 knockout HAP1 (TIA1 knockout human chronic myelogenous leukemia near-haploid cell line, (Left) / WT HAP1 (Right) cells labelling TIA1 with ab263945 at 1/600 dilution (Red) compared with a Rabbit monoclonal IgG (**ab172730**) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). A Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**) at 1/2000 dilution was used as the secondary antibody.



Immunoprecipitation - Anti-TIA1 antibody [EPR22999-80] (ab263945)

TIA1 was immunoprecipitated from 0.35 mg HuT-78 (human Sezary syndrome cutaneous T lymphocyte) whole cell lysate with ab263945 at 1/30 dilution (2ug in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab263945 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (**ab131366**) was used at 1/5000 dilution.

Lane 1: HuT-78 (human Sezary syndrome cutaneous T lymphocyte) whole cell lysate 10ug

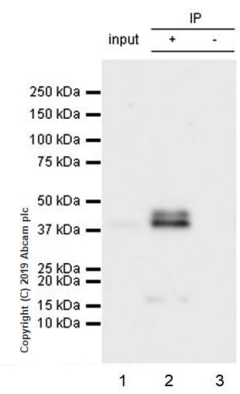
Lane 2: ab263945 IP in HuT-78 whole cell lysate

Lane 3: Rabbit monoclonal IgG (**ab172730**) instead of ab263945 in HuT-78 whole cell lysate

Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 3 seconds.

Truncated form (~16kDa) of TIA1 was also immunoprecipitated. (PMID: 25224594).



Immunoprecipitation - Anti-TIA1 antibody [EPR22999-80] (ab263945)

TIA1 was immunoprecipitated from 0.35 mg Jurkat (human T cell leukemia T lymphocyte) whole cell lysate 10ug with ab263945 at 1/30 dilution (2ug in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab263945 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (**ab131366**) was used at 1/5000 dilution.

Lane 1: Jurkat (human T cell leukemia T lymphocyte) whole cell lysate 10ug

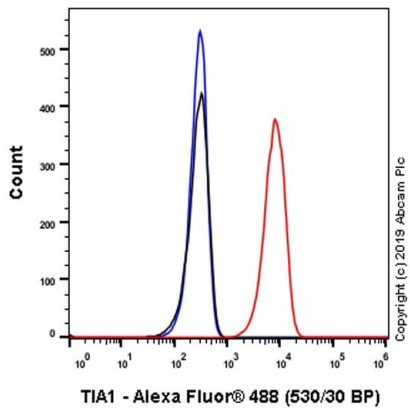
Lane 2: ab263945 IP in Jurkat whole cell lysate

Lane 3: Rabbit monoclonal IgG (**ab172730**) instead of ab263945 in Jurkat whole cell lysate

Blocking and dilution buffer and concentration: 5% NFDM/TBST.

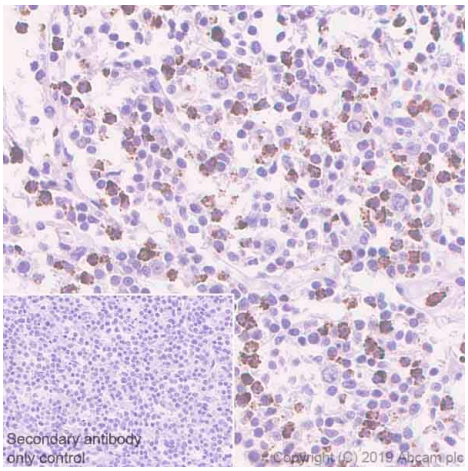
Exposure time: 10 seconds.

Truncated form (~16kDa) of TIA1 was also immunoprecipitated. (PMID: 25224594).



Flow Cytometry (Intracellular) - Anti-TIA1 antibody [EPR22999-80] (ab263945)

Intracellular flow cytometric analysis of 4% paraformaldehyde fixed, 90% methanol permeabilized Jurkat (human T cell leukemia T lymphocyte) cells labelling TIA1 with ab263945 at 1/600 dilution (Red) compared with a Rabbit monoclonal IgG (**ab172730**) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). A Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**) at 1/2000 dilution was used as the secondary antibody.



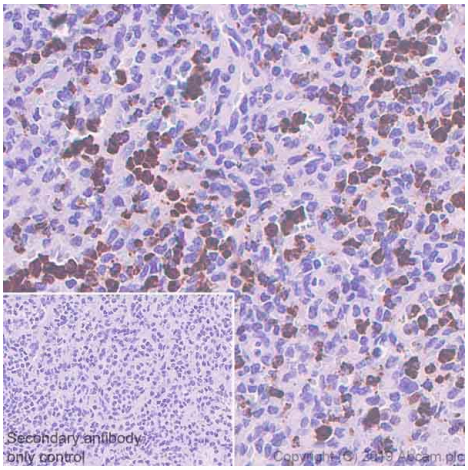
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TIA1 antibody [EPR22999-80] (ab263945)

Immunohistochemical analysis of paraffin-embedded Human classical hodgkin lymphoma tissue labeling TIA1 with ab263945 at 1/4000 dilution (0.15ug/ml) followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**). Positive staining in T-lymphocytes of human classical hodgkin lymphoma (PMID: 19096012) is observed.

The section was incubated with **ab256492** for 15 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20 mins.



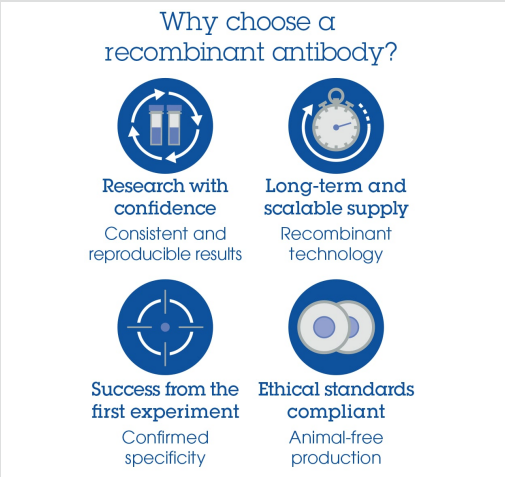
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TIA1 antibody [EPR22999-80] (ab263945)

Immunohistochemical analysis of paraffin-embedded Human spleen tissue labeling TIA1 with ab263945 at 1/4000 dilution (0.15ug/ml) followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**). Positive staining in T-lymphocytes of human spleen (PMID: 23510456) is observed.

The section was incubated with **ab256492** for 15 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20 mins.



Anti-TIA1 antibody [EPR22999-80] (ab263945)

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