abcam

Product datasheet

# Anti-TBR2 / Eomes antibody [EPR21950-241] ab216870

Recombinant RabMAb

★★★★★ 8 Abreviews 7 References 8 Images

## Overview

| | |
|---|---|
| **Product name** | Anti-TBR2 / Eomes antibody [EPR21950-241] |
| **Description** | Rabbit monoclonal [EPR21950-241] to TBR2 / Eomes |
| **Host species** | Rabbit |
| **Tested applications** | **Suitable for:** IHC-P, IHC-Fr, ICC/IF, IP<br>**Unsuitable for:** Flow Cyt or WB |
| **Species reactivity** | **Reacts with:** Mouse, Rat, Human<br>**Predicted to work with:** Hamster, Cat, Dog, Pig, Non human primates, Common marmoset |
| **Immunogen** | Synthetic peptide. This information is proprietary to Abcam and/or its suppliers. |
| **Positive control** | IHC-P: Human tonsil, E14.5 mouse cerebral cortex and E14.5 rat cerebral cortex tissues. IHC-Fr: Mouse E14.5 cerebrum and Rat E14.5 cerebrum tissue. ICC/IF: Mouse primary neuron/glia cells. IP: Mouse E14 brain tissue lysate. |
| **General notes** | This product is a recombinant monoclonal antibody, which offers several advantages including:<br>- High batch-to-batch consistency and reproducibility<br>- Improved sensitivity and specificity<br>- Long-term security of supply<br>- Animal-free production<br>For more information **see here**.<br>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<br>Preservative: 0.01% Sodium azide<br>Constituents: 59% PBS, 40% Glycerol, 0.05% BSA |
| **Purity** | Protein A purified |

| | |
|---|---|
| **Clonality** | Monoclonal |
| **Clone number** | EPR21950-241 |
| **Isotype** | IgG |

## Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab216870 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 |
|---|---|---|
| **IHC-P** | ★★★★★ (5) | 1/1000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol. |
| **IHC-Fr** | ★★★★☆ (1) | 1/100. |
| **ICC/IF** | ★★★★★ (1) | 1/100. |
| **IP** | | 1/50. |

**Application notes** Is unsuitable for Flow Cyt or WB.

## Target

**Function** Functions as a transcriptional activator playing a crucial role during development. Functions in trophoblast differentiation and later in gastrulation, regulating both mesoderm delamination and endoderm specification. Plays a role in brain development being required for the specification and the proliferation of the intermediate progenitor cells and their progeny in the cerebral cortex. Also involved in the differentiation of CD8+ T-cells during immune response regulating the expression of lytic effector genes.

**Tissue specificity** Expressed in CD8+ T-cells.

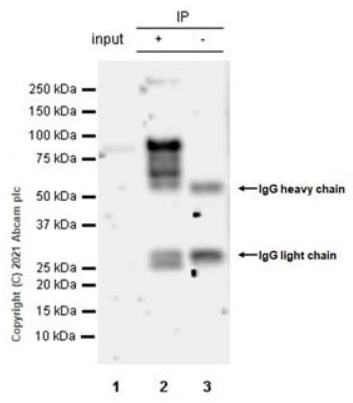
**Involvement in disease** Note=A translocation t(3;10)(p24;q23) located 215 kb 3' to the EOMES gene but leading to loss of its expression was identified in a large consanguineous family. Homozygous silencing produces microcephaly associated with corpus callosum agenesis, bilateral polymicrogyria, ventricular dilatation and a small cerebellum.

**Sequence similarities** Contains 1 T-box DNA-binding domain.

**Developmental stage** Detected at 7 weeks of development in the forebrain floorplate of the CNS. Expressed within the mantle layer and migrating neuroblasts of the telencephalon at 12.5 weeks of development.

**Cellular localization** Nucleus.

## Images




Immunoprecipitation - Anti-TBR2 / Eomes antibody [EPR21950-241] (ab216870)

TBR2 / Eomes was immunoprecipitated from 0.35mg Mouse E14 brain tissue lysate 10µg with ab216870 at 1/50 dilution (2µg in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab216870 1/1000 dilution (0.67 µg/ml). VeriBlot for IP Detection Reagent (HRP) (**ab131366**) was used as the secondary antibody at 1/5000 dilution.

**Lane 1**: Mouse E14 brain tissue lysate 10 µg

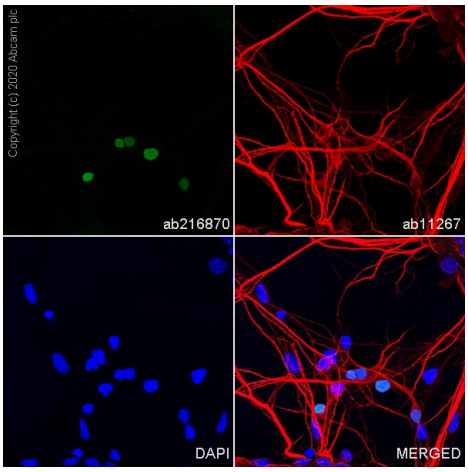
**Lane 2**: ab216870 IP in Mouse E14 brain tissue lysate

**Lane 3**: Rabbit monoclonal IgG (**ab172730**) instead of ab216870 in Mouse E14 brain tissue lysate.

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

Exposure time: 3 min

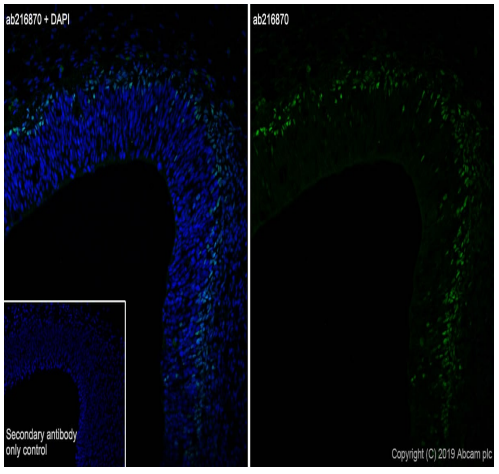
The band is consistent with what has been described in the literature (PMID: 26749212).




Immunocytochemistry/ Immunofluorescence - Anti-TBR2 / Eomes antibody [EPR21950-241] (ab216870)

Immunocytochemistry confocal image showing nuclear staining in mouse primary neuron cells. Anti-TBR2 is stained with ab216870 in a 1/100 dilution, and 2µg/ml AlexaFluor®488 Goat anti-Rabbit secondary (**ab150077**). Nuclear counterstaining is DAPI (blue).

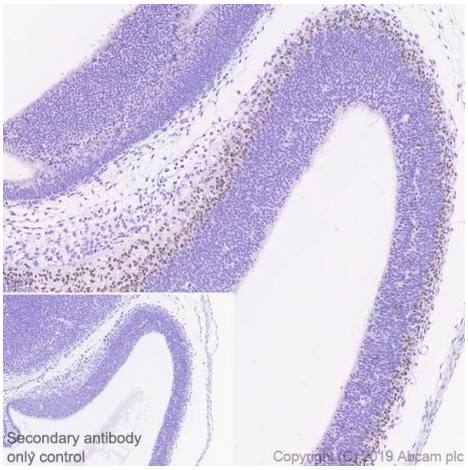
The negative control is **ab11267** Anti-MAP2 mouse monoclonal antibody with **ab150120** AlexaFluor®594 Goat anti-Mouse secondary.




Immunohistochemistry (Frozen sections) - Anti-TBR2 / Eomes antibody [EPR21950-241] (ab216870)

Immunohistochemical analysis of 4% PFA fixed 0.2% Triton X-100 permeabilized frozen Rat E14.5 cerebrum tissue labeling EOMES with ab216870 at 1/100 (5.75 µg/ml) dilution followed by **ab150077** AlexaFluor®488 Goat anti-Rabbit secondary at 1/1000 (2 µg/ml) dilution. The nuclear counterstain was DAPI (Blue). Heat mediated antigen retrieval using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20). Positive staining in rat embryonic cerebrum (PMID: 24223221) is observed.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody was **ab150077** AlexaFluor®488 Goat anti-Rabbit secondary at 1/1000 (2 µg/ml) dilution.

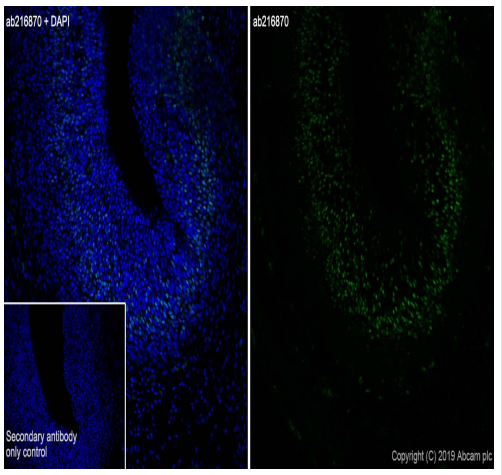



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TBR2 / Eomes antibody [EPR21950-241] (ab216870)

Immunohistochemical analysis of paraffin-embedded E14.5 rat cerebral cortex tissue labeling EOMES with ab216870 at 1/1000 dilution followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**). Nuclear staining on E14.5 rat cerebral cortex (PMID: 18725516) is observed. The section was incubated with ab216870 for 30 mins at RT. The immunostaining staining 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**).

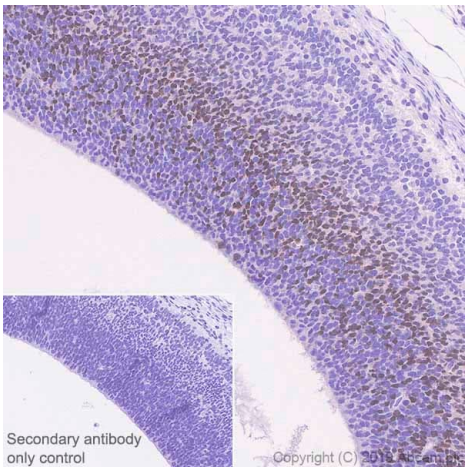
Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20 mins.




Immunohistochemistry (Frozen sections) - Anti-TBR2 / Eomes antibody [EPR21950-241] (ab216870)

Immunohistochemical analysis of 4% paraformaldehyde-fixed 0.2% Triton X-100 permeabilized frozen Mouse E14.5 cerebrum tissue stained for EOMES using ab216870 at 1/100 dilution in immunohistochemical analysis. The secondary antibody was **ab150077** AlexaFluor®488 Goat anti-Rabbit secondary antibody at 1/1000 dilution. The nuclear counterstain was DAPI (Blue). Positive staining in mouse embryonic cerebrum (PMID: 24223221) is observed. Heat mediated antigen retrieval using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20).

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody was **ab150077** AlexaFluor®488 Goat anti-Rabbit secondary at 1/1000 (2 µg/ml) dilution.

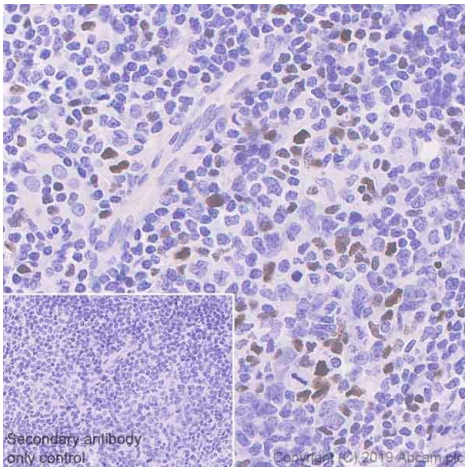



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TBR2 / Eomes antibody [EPR21950-241] (ab216870)

Immunohistochemical analysis of paraffin-embedded E14.5 mouse cerebral cortex tissue labeling EOMES with ab216870 at 1/1000 dilution followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**). Nuclear staining on E14.5 mouse cerebral cortex (PMID: 18725516) The section was incubated with ab216870 for 30 mins at RT. The immunostaining staining 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-TBR2 / Eomes antibody [EPR21950-241] (ab216870)

Immunohistochemical analysis of paraffin-embedded Human tonsil tissue labeling EOMES with ab216870 at 1/1000 dilution followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**). Nuclear staining on human tonsil is observed. The section was incubated with ab216870 for 30 mins at RT. The immunostaining staining 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-TBR2 / Eomes antibody [EPR21950-241] (ab216870)



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