

Product datasheet

Anti-FOXG1 antibody [EPR18987] ab196868

Recombinant RabMAb

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Overview

Product name	Anti-FOXG1 antibody [EPR18987]
Description	Rabbit monoclonal [EPR18987] to FOXG1
Host species	Rabbit
Tested applications	Suitable for: Flow Cyt (Intra), WB, IHC-P, IHC-Fr, ICC/IF, IP
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: Mouse E12.5 brain lysate; Rat E18 brain lysate; Human fetal brain lysate; Mouse brain lysate; Rat brain lysate. IHC-P: Human glioma tissue; Mouse and rat E14 tissues. IHC-Fr: Mouse and rat embryo E14.5 tissues. ICC/IF: C6 cells. Flow Cyt (intra): C6 cells. IP: Mouse brain cell lysate.
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p>

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	<p>pH: 7.2</p> <p>Preservative: 0.01% Sodium azide</p> <p>Constituents: PBS, 0.05% BSA, 40% Glycerol (glycerin, glycerine)</p>
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR18987

Isotype

IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab196868 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)		1/60.
WB		1/1000. Detects a band of approximately 58 kDa (predicted molecular weight: 52 kDa).
IHC-P		1/500. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol. For mouse and rat samples we recommend a dilution of 1/2000.
IHC-Fr		1/500.
ICC/IF	★★★★★ (1)	1/100.
IP		1/30.

Target

Function

Transcription repression factor which plays an important role in the establishment of the regional subdivision of the developing brain and in the development of the telencephalon.

Tissue specificity

Expression is restricted to the neurons of the developing telencephalon.

Involvement in disease

Defects in FOXP1 are the cause of congenital variant of Rett syndrome (RTTCV) [MIM:613454]. RTTCV is a severe neurodevelopmental disorder with features of classic Rett syndrome but earlier onset in the first months of life. Clinical features include progressive microcephaly, hypotonia, irresponsiveness and irritability in the neonatal period, mental retardation, psychomotor regression and stereotypical movements.

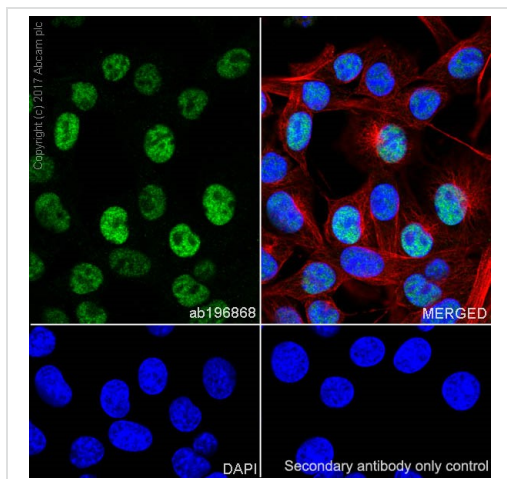
Sequence similarities

Contains 1 fork-head DNA-binding domain.

Cellular localization

Nucleus.

Images

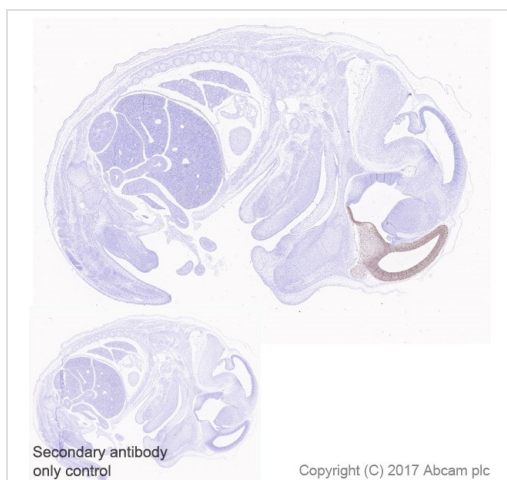


Immunocytochemistry/ Immunofluorescence - Anti-FOXG1 antibody [EPR18987] (ab196868)

Immunofluorescent analysis of 4% paraformaldehyde fixed, 0.1% Triton X-100 permeabilized C6 (rat glial tumor cell line) cells labeling FOXG1 with ab196868 at 1/100 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (**ab150077**) secondary antibody at 1/1000 dilution (green). Nuclear staining on C6 cell line.

The nuclear counter stain is DAPI (blue). Tubulin is detected with Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) (**ab195889**) (red) at 1/200 dilution.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (**ab150077**) secondary antibody at 1/1000 dilution.

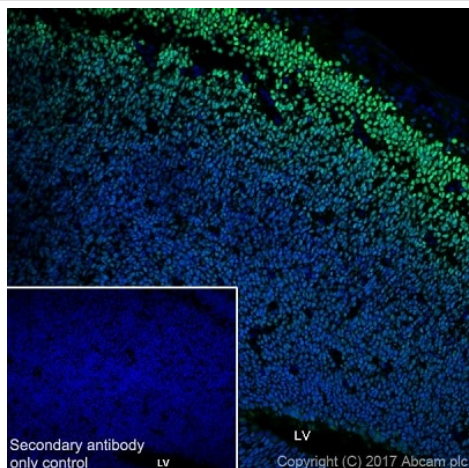


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-FOXG1 antibody [EPR18987] (ab196868)

Immunohistochemical analysis of paraffin-embedded mouse E14 tissue labeling FOXG1 with ab196868 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Nuclear staining on cerebrum and olfactory epithelium of E14 mouse is observed. Counter stained with hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

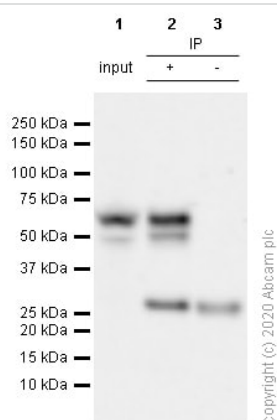
Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunohistochemistry (Frozen sections) - Anti-FOXG1 antibody [EPR18987] (ab196868)

Immunohistochemical analysis of 4% paraformaldehyde fixed, 0.2% Triton X-100 permeabilized frozen mouse embryo E14.5 tissue labeling FOXG1 with ab196868 at 1/500 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) ([ab150077](#)) secondary antibody at 1/1000 dilution (green). Positive nuclear staining in the cortical plate of the telencephalon (LV: lateral ventricle; PMID: 14704420) is observed. Counter stained with DAPI.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) ([ab150077](#)) secondary antibody at 1/1000 dilution (green).



Immunoprecipitation - Anti-FOXG1 antibody [EPR18987] (ab196868)

FOXG1 was immunoprecipitated from 0.35 mg mouse brain lysate 10 µg with ab196868 at 1/30 dilution (2µg in 0.35mg lysates).

Western blot was performed on the immunoprecipitate using ab196868 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP)([ab131366](#)) was used at 1/5000 dilution.

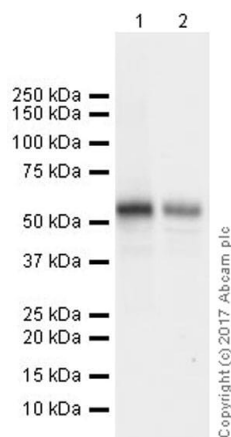
Lane 1: mouse brain lysate 10 µg

Lane 2: ab196868 IP in mouse brain cell lysate

Lane 3: Rabbit monoclonal IgG ([ab172730](#)) instead of ab196868 in mouse brain lysate

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

Exposure time: 32s



Western blot - Anti-FOXG1 antibody [EPR18987]
(ab196868)

All lanes : Anti-FOXG1 antibody [EPR18987] (ab196868) at 1/1000 dilution

Lane 1 : Rat E18 brain lysate

Lane 2 : Mouse E12.5 brain lysate

Lysates/proteins at 20 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/20000 dilution

Developed using the ECL technique.

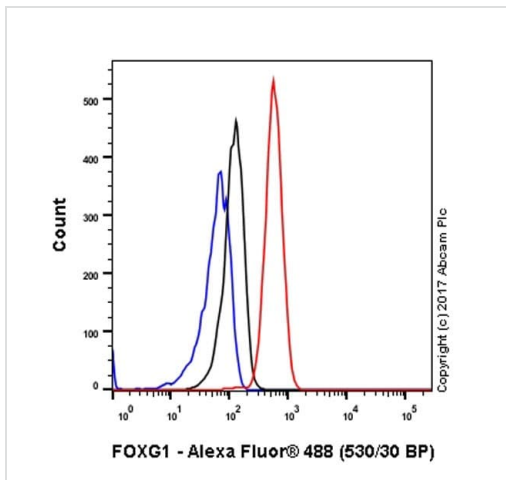
Predicted band size: 52 kDa

Observed band size: 58 kDa

Exposure time: 3 seconds

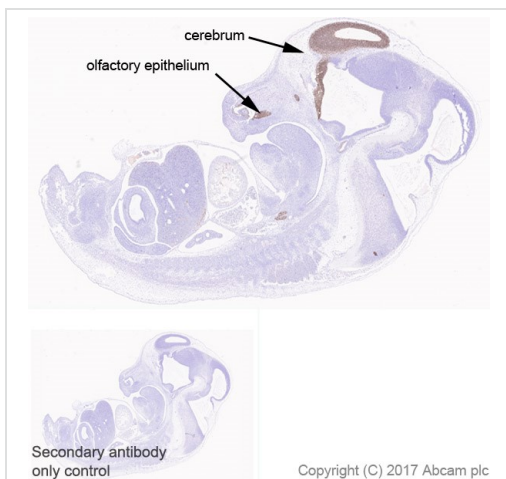
Blocking/Dilution buffer: 5% NFDm/TBST.

The molecular mass observed is consistent with the literature (PMID: 26508630). The blot was developed on a BIO-RAD® ChemiDoc™ MP instrument.



Flow Cytometry (Intracellular) - Anti-FOXG1 antibody
[EPR18987] (ab196868)

Intracellular flow cytometric analysis of 4% paraformaldehyde fixed, 90% methanol permeabilized C6 (rat glial tumor cell line) cell line labeling FOXG1 with ab196868 at 1/60 dilution (red) compared with a Rabbit IgG, monoclonal [EPR25A] - Isotype Control (**ab172730**) (black) and an unlabeled control (cells without incubation with primary antibody and secondary antibody) (blue). Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (**ab150077**) at 1/2000 dilution was used as the secondary antibody.

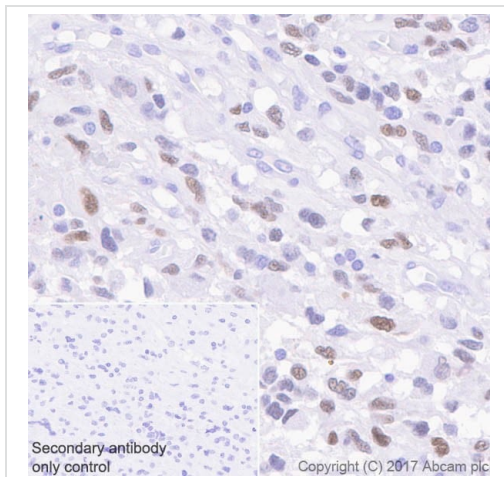


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-FOXG1 antibody
[EPR18987] (ab196868)

Immunohistochemical analysis of paraffin-embedded rat E14 tissue labeling FOXG1 with ab196868 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Nuclear staining on cerebrum and olfactory epithelium of E14 rat is observed. Counter stained with hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

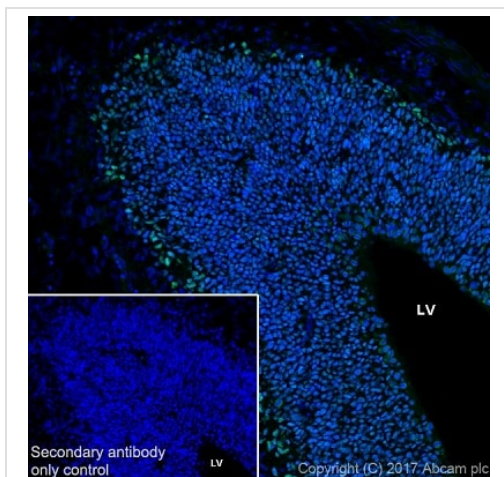


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-FOXG1 antibody [EPR18987] (ab196868)

Immunohistochemical analysis of paraffin-embedded human glioma tissue labeling FOXG1 with ab196868 at 1/500 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Nuclear staining in cells from a human glioma (PMID: 28465359) is observed. Counter stained with hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

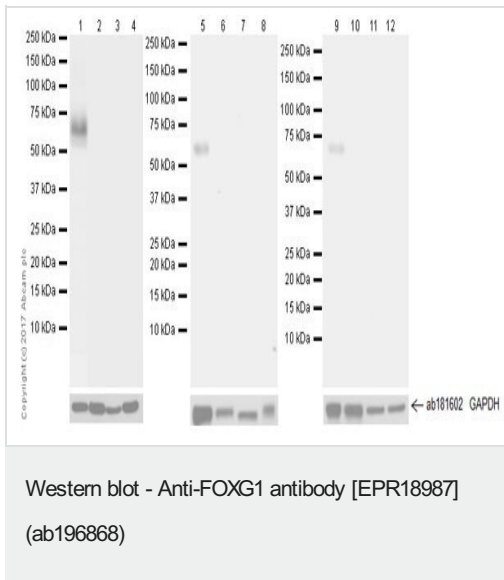
Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunohistochemistry (Frozen sections) - Anti-FOXG1 antibody [EPR18987] (ab196868)

Immunohistochemical analysis of 4% paraformaldehyde fixed, 0.2% Triton X-100 permeabilized frozen rat embryo E14.5 tissue labeling FOXG1 with ab196868 at 1/500 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (**ab150077**) secondary antibody at 1/1000 dilution (green). Positive nuclear staining in the cortical plate of the telencephalon (LV: lateral ventricle; PMID: 14704420) is observed. Counter stained with DAPI.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (**ab150077**) secondary antibody at 1/1000 dilution (green).



All lanes : Anti-FOXG1 antibody [EPR18987] (ab196868) at 1/1000 dilution

Lane 1 : Human fetal brain lysate

Lane 2 : Human fetal heart lysate

Lane 3 : Human fetal kidney lysate

Lane 4 : Human fetal spleen lysate

Lane 5 : Mouse brain lysate

Lane 6 : Mouse heart lysate

Lane 7 : Mouse kidney lysate

Lane 8 : Mouse spleen lysate

Lane 9 : Rat brain lysate

Lane 10 : Rat heart lysate

Lane 11 : Rat liver lysate

Lane 12 : Rat spleen lysate

Lysates/proteins at 10 µg per lane.

Secondary

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

Developed using the ECL technique.

Predicted band size: 52 kDa

Observed band size: 58 kDa

Blocking/Dilution buffer: 5% NFDM/TBST.

Exposure time : Lanes 1-4: 15 seconds; Lanes 5-12: 3 minutes.

This target is expressed during brain development (PMID: 26896590, PMID: 7959731). The blot was developed on a BIO-RAD® ChemiDoc™ MP instrument.

Why choose a recombinant antibody?



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Anti-FOXG1 antibody [EPR18987] (ab196868)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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