

Product datasheet

Anti-SOX17 antibody [EPR20684] ab224637

KO VALIDATED Recombinant RabMAb

★★★★☆ [6 Abreviews](#) [3 References](#) [9 Images](#)

Overview

Product name	Anti-SOX17 antibody [EPR20684]
Description	Rabbit monoclonal [EPR20684] to SOX17
Host species	Rabbit
Tested applications	Suitable for: ICC/IF, IHC-P, IP, WB
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: HeLa, SK-OV-3 and OVCAR-3 cell lysates; SOX17 recombinant protein; Rat E4 embryo, E9.5 embryo and rat lung tissue lysates. IHC-P: Human seminoma tissue; Rat lung tissue; Mouse spleen tissue. IP: SK-OV-3 whole cell lysate. ICC/IF: HeLa cells.
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	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: 0.05% BSA, 40% Glycerol (glycerin, glycerine), PBS
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR20684

Isotype

IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab224637 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
ICC/IF	★★★★★ (2)	Use a concentration of 0.2 µg/ml.
IHC-P	★★★★★ (1)	1/2000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
IP		1/30.
WB		1/500. Detects a band of approximately 55 kDa (predicted molecular weight: 44 kDa).

Target

Function

Acts as transcription regulator that binds target promoter DNA and bends the DNA. Binds to the sequences 5'-AACAAAT-3' or 5'-AACAAAG-3'. Modulates transcriptional regulation via WNT3A. Inhibits Wnt signaling. Promotes degradation of activated CTNNB1. Plays a key role in the regulation of embryonic development. Required for normal looping of the embryonic heart tube. Required for normal development of the definitive gut endoderm. Probable transcriptional activator in the premeiotic germ cells.

Tissue specificity

Expressed in adult heart, lung, spleen, testis, ovary, placenta, fetal lung, and kidney. In normal gastrointestinal tract, it is preferentially expressed in esophagus, stomach and small intestine than in colon and rectum.

Involvement in disease

Defects in SOX17 are the cause of vesicoureteral reflux type 3 (VUR3) [MIM:613674]. VUR3 is a disease belonging to the group of congenital anomalies of the kidney and urinary tract. It is characterized by the reflux of urine from the bladder into the ureters and sometimes into the kidneys, and is a risk factor for urinary tract infections. Primary disease results from a developmental defect of the ureterovesical junction. In combination with intrarenal reflux, the resulting inflammatory reaction may result in renal injury or scarring, also called reflux nephropathy. Extensive renal scarring impairs renal function and may predispose patients to hypertension, proteinuria, renal insufficiency and end-stage renal disease.

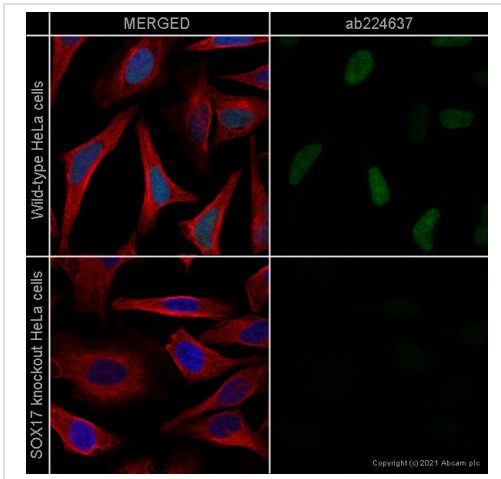
Sequence similarities

Contains 1 HMG box DNA-binding domain.
Contains 1 Sox C-terminal domain.

Cellular localization

Nucleus.

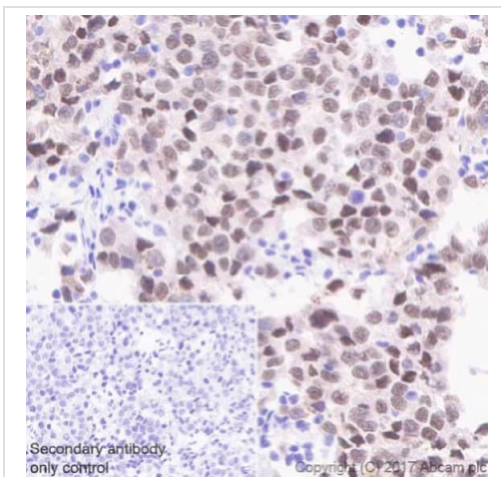
Images



Immunocytochemistry/ Immunofluorescence - Anti-SOX17 antibody [EPR20684] (ab224637)

ab224637 staining SOX17 in wild-type HeLa cells (top panel) and SOX17 knockout HeLa cells (**ab265744**) (bottom panel). The cells were fixed with 4% paraformaldehyde (10 min) then permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated with ab224637 at 0.2µg/ml concentration and **ab7291** (Mouse monoclonal to alpha Tubulin) at 1/1000 dilution overnight at 4°C followed by a further incubation at room temperature for 1h with a goat secondary antibody to rabbit IgG (Alexa Fluor® 488) (**ab150081**) at 2 µg/ml (shown in green) and a goat secondary antibody to mouse IgG (Alexa Fluor® 594) (**ab150120**) at 2 µg/ml (shown in red). Nuclear DNA was labelled in blue with DAPI.

Image was taken with a confocal microscope (Leica-Microsystems TCS SP8).

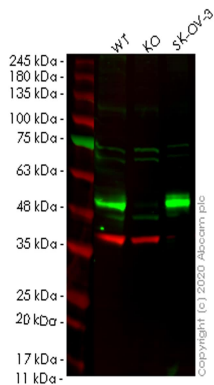


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SOX17 antibody [EPR20684] (ab224637)

Immunohistochemical analysis of paraffin-embedded human seminoma tissue labeling SOX17 with ab224637 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) ready to use. Nuclear staining on tumor cells of human seminoma (PMID:19369635; PMID:18348160) 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.



Western blot - Anti-SOX17 antibody [EPR20684] (ab224637)

All lanes : Anti-SOX17 antibody [EPR20684] (ab224637) at 1/1000 dilution

Lane 1 : Wild-type HeLa cell lysate

Lane 2 : SOX17 knockout HeLa cell lysate

Lane 3 : SK-OV-3 cell lysate

Lysates/proteins at 20 µg per lane.

Secondary

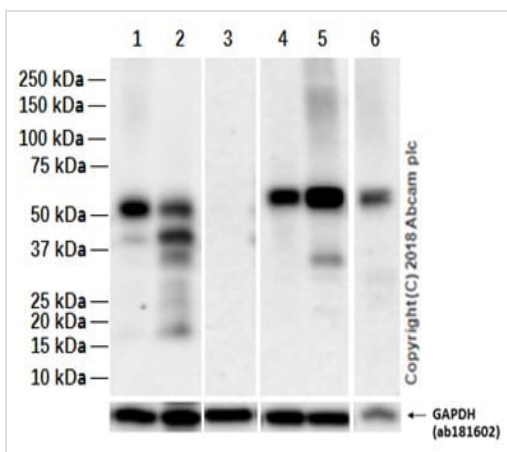
All lanes : Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (**ab216773**) at 1/10000 dilution

Predicted band size: 44 kDa

Observed band size: 51 kDa

Lanes 1-3: Merged signal (red and green). Green - ab224637 observed at 51 kDa. Red - loading control **ab8245** observed at 36 kDa.

ab224637 Anti-SOX17 antibody [EPR20684] was shown to specifically react with SOX17 in wild-type HeLa cells. Loss of signal was observed when knockout cell line **ab265744** (knockout cell lysate **ab257697**) was used. Wild-type and SOX17 knockout samples were subjected to SDS-PAGE. ab224637 and Anti-GAPDH antibody [6C5] - Loading Control (**ab8245**) were incubated at room temperature for 2.5 hours at 1 in 1000 dilution and 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed (**ab216776**) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.



Western blot - Anti-SOX17 antibody [EPR20684]
(ab224637)

All lanes : Anti-SOX17 antibody [EPR20684] (ab224637) at 1/500 dilution

Lane 1 : SK-OV-3 (Human adenocarcinoma) whole cell lysates with NFDN/TBST

Lane 2 : NIH: OVCAR-3 (Human ovary adenocarcinoma) whole cell lysates with NFDN/TBST

Lane 3 : HeLa (Human cervix adenocarcinoma) whole cell lysates with NFDN/TBST

Lane 4 : Rat E14 embryo tissue lysates with NFDN/TBST

Lane 5 : Rat E9.5 embryo tissue lysates with NFDN/TBST

Lane 6 : Rat lung tissue lysates with NFDN/TBST

Lysates/proteins at 20 µg per lane.

Blocking peptides at 5 % per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG) at 1/2000 dilution

Predicted band size: 44 kDa

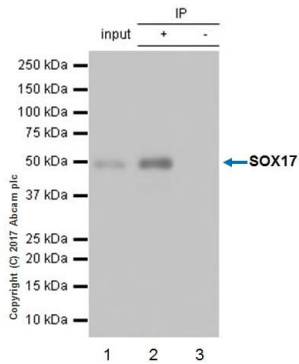
Exposure time:

Lanes 1-2: 5 seconds

Lanes 3-6: 3 minutes

The expression profile observed is consistent with the literature (PMID: 11786926).

Negative control: HeLa.



Immunoprecipitation - Anti-SOX17 antibody
[EPR20684] (ab224637)

SOX17 was immunoprecipitated from 0.35 mg of SK-OV-3 (human ovarian cancer cell line) lysate with ab224637 at 1/30 dilution. Western blot was performed from the immunoprecipitate using ab224637 at 1/500 dilution. VeriBlot for IP Detection Reagent (HRP) ([ab131366](#)), was used for detection at 1/1000 dilution.

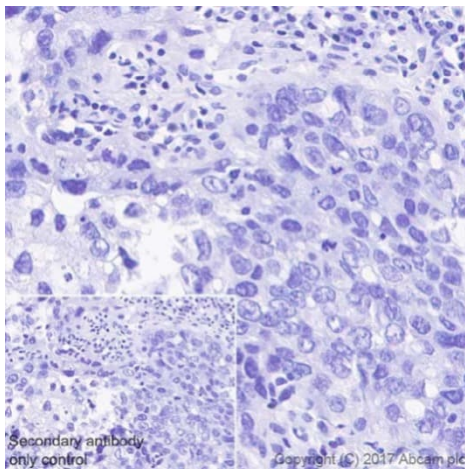
Lane 1: SK-OV-3 whole cell lysate 10 µg (Input).

Lane 2: ab224637 IP in SK-OV-3 whole cell lysate.

Lane 3: Rabbit monoclonal IgG ([ab172730](#)) instead of ab224637 in SK-OV-3 whole cell lysate.

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

Exposure time: 1 second.

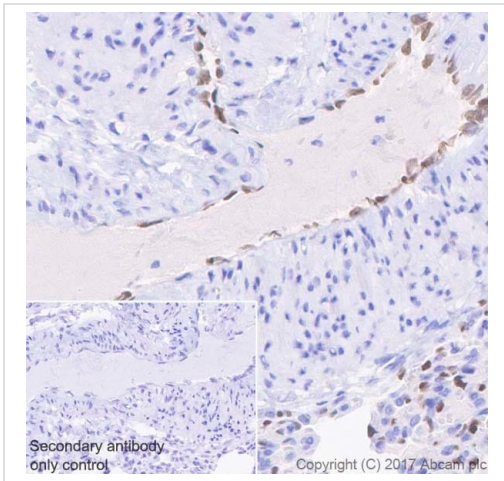


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SOX17 antibody
[EPR20684] (ab224637)

Immunohistochemical analysis of paraffin-embedded human choriocarcinoma tissue labeling SOX17 with ab224637 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) ready to use. **Negative tissue:** no staining on tumor cells of human choriocarcinoma (PMID: 19369635) 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.

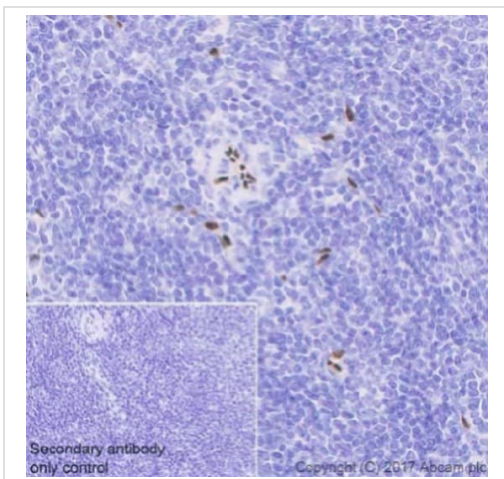


Immunohistochemical analysis of paraffin-embedded rat lung tissue labeling SOX17 with ab224637 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) ready to use. Nuclear staining on endothelium of rat lung (PMID:24418654) is observed. Counter stained with Hematoxylin.

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-SOX17 antibody [EPR20684] (ab224637)







Immunohistochemical analysis of paraffin-embedded mouse spleen tissue labeling SOX17 with ab224637 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) ready to use. Nuclear staining on endothelium of mouse spleen (PMID:24418654) 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-SOX17 antibody [EPR20684] (ab224637)

Why choose a recombinant antibody?

 <p>Research with confidence Consistent and reproducible results</p>	 <p>Long-term and scalable supply Recombinant technology</p>
 <p>Success from the first experiment Confirmed specificity</p>	 <p>Ethical standards compliant Animal-free production</p>

Anti-SOX17 antibody [EPR20684] (ab224637)

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

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