

Product datasheet

Anti-SRY/TDF antibody [1G4] ab135239

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Overview

Product name	Anti-SRY/TDF antibody [1G4]
Description	Mouse monoclonal [1G4] to SRY/TDF
Host species	Mouse
Tested applications	Suitable for: WB, IHC-P, Flow Cyt
Species reactivity	Reacts with: Human
Immunogen	Recombinant full length protein corresponding to Human SRY/TDF aa 1-204.
Positive control	Human SRY/TDF recombinant protein; NTERA2 cell lysate; HepG2 cells; Human cervical and ovarian cancer tissues.
General notes	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at -20°C.
Storage buffer	Preservative: 0.05% Sodium azide Constituent: 99% PBS Contains 0.5% protein stabilizer.
Purity	Protein G purified
Purification notes	Purified from tissue culture supernatant.
Clonality	Monoclonal
Clone number	1G4
Isotype	IgG1

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab135239 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
WB		1/500 - 1/2000. Predicted molecular weight: 24 kDa.
IHC-P		1/200 - 1/1000.
Flow Cyt		1/200 - 1/400. ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

Target

Function

Transcriptional regulator that controls a genetic switch in male development. It is necessary and sufficient for initiating male sex determination by directing the development of supporting cell precursors (pre-Sertoli cells) as Sertoli rather than granulosa cells (By similarity). In male adult brain involved in the maintenance of motor functions of dopaminergic neurons (By similarity). Involved in different aspects of gene regulation including promoter activation or repression (By similarity). Promotes DNA bending. SRY HMG box recognizes DNA by partial intercalation in the minor groove. Also involved in pre-mRNA splicing. Binds to the DNA consensus sequence 5'-[AT]AACAA[AT]-3'.

Involvement in disease

Defects in SRY are a cause of gonadal dysgenesis XY female type (GDXY) [MIM:400044]; also known as complete SRY-related 46,XY gonadal dysgenesis or 'XY females' or Swyer syndrome. Patients are found to have a 46,XY karyotype. They suffer rapid and early degeneration of their gonads, which are present in the adult as 'streak gonads', consisting mainly of fibrous tissue and variable amounts of ovarian stroma. As a result these patients do not develop secondary sexual characteristics at puberty. The external genitalia in these subjects are completely female, and Mullerian structures are normal. In contrast, subjects with 46,XY partial gonadal dysgenesis have ambiguous genitalia, a mix of Mullerian and Wolffian structures, and dysgenic gonads.

Note=A 45,X chromosomal aberration involving SRY is found in Turner syndrome, a disease characterized by gonadal dysgenesis with short stature, "streak gonads", variable abnormalities such as webbing of the neck, cubitus valgus, cardiac defects, low posterior hair line. The phenotype is female.

Defects in SRY are a cause of true hermaphroditism (TRUHER) [MIM:400045]; also known as complete SRY-positive 46,XX gonadal dysgenesis. A true hermaphrodite must have both mature ovarian and mature testicular tissue with histologic evidence of follicles and tubules, respectively. It is a genetically heterogeneous condition. The genotype of most affected individuals is 46,XX, but many have 46,XY or a mosaic of 46,XX/46,XY. True hermaphroditism can be caused also by chromosomal translocation.

Sequence similarities

Belongs to the SRY family.
Contains 1 HMG box DNA-binding domain.

Domain

DNA binding and bending properties of the HMG domains of human and mouse SRY differ from each other. Human SRY shows more extensive minor groove contacts with DNA and a lower specificity of sequence recognition than mouse SRY.

Post-translational

Phosphorylated on serine residues by PKA. Phosphorylation by PKA enhances its DNA-binding

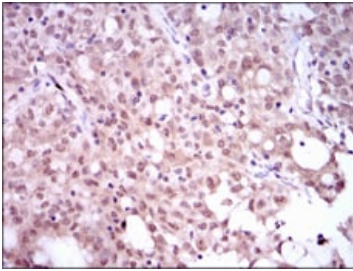
modifications

activity and stimulates transcription repression. Acetylation of Lys-136 contributes to its nuclear localization and enhances its interaction with KPNB1. Deacetylated by HDAC3. Poly-ADP-ribosylated by PARP1. ADP-ribosylation reduces its DNA-binding activity.

Cellular localization

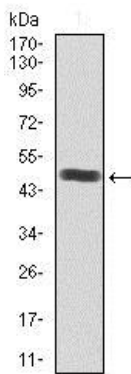
Nucleus speckle. Cytoplasm. Colocalizes with SOX6 in speckles. Colocalizes with CAML in the nucleus. Colocalizes in the nucleus with ZNF208 isoform KRAB-O and tyrosine hydroxylase (TH).

Images



Immunohistochemical analysis of Paraffin-embedded Human cervical cancer tissue labelling SRY/TDF with ab135239 at 1/200 dilution followed by DAB staining.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SRY/TDF antibody [1G4] (ab135239)

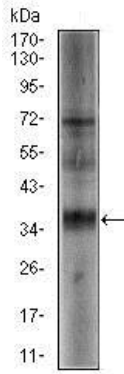


Anti-SRY/TDF antibody [1G4] (ab135239) at 1/500 dilution + Human SRY/TDF recombinant protein

Predicted band size: 24 kDa

Expected MW is 49.4 kDa.

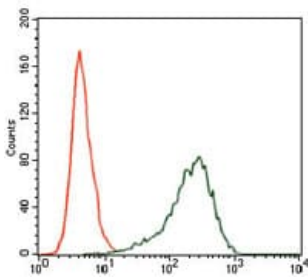
Western blot - Anti-SRY/TDF antibody [1G4] (ab135239)



Anti-SRY/TDF antibody [1G4] (ab135239) at 1/500 dilution +
NTERA2 cell lysate

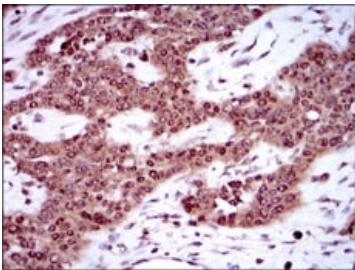
Predicted band size: 24 kDa

Western blot - Anti-SRY/TDF antibody [1G4]
(ab135239)



Flow cytometric analysis of HepG2 cells labelling SRY/TDF with
ab135239 at 1/200 dilution (green). Negative control (red).

Flow Cytometry - Anti-SRY/TDF antibody [1G4]
(ab135239)



Immunohistochemical analysis of Paraffin-embedded Human
ovarian cancer tissue labelling SRY/TDF with ab135239 at 1/200
dilution followed by DAB staining.

Immunohistochemistry (Formalin/PFA-fixed paraffin-
embedded sections) - Anti-SRY/TDF antibody [1G4]
(ab135239)

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