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SRY Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1747a

Product Information

Application	WB, IHC, FC, E
Primary Accession	Q05066
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	1G4
Isotype	IgG1
Calculated MW	23884
Description	This intronless gene encodes a transcription factor that is a member of the high mobility group (HMG)-box family of DNA-binding proteins. This protein is the testis-determining factor (TDF), which initiates male sex determination. Mutations in this gene give rise to XY females with gonadal dysgenesis (Swyer syndrome); translocation of part of the Y chromosome containing this gene to the X chromosome causes XX male syndrome.
Immunogen	Purified recombinant fragment of human SRY (AA:1-204) expressed in E. Coli.
Formulation	Purified antibody in PBS with 0.05% sodium azide

Additional Information

Gene ID	6736
Other Names	Sex-determining region Y protein, Testis-determining factor, SRY, TDF
Dilution	WB~~1/500 - 1/2000 IHC~~1/200 - 1/1000 FC~~1/200 - 1/400 E~~1/10000
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	SRY Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	SRY {ECO:0000303|PubMed:1695712, ECO:0000312|HGNC:HGNC:11311}
Function	Transcriptional regulator that controls a genetic switch in male development (PubMed:11563911). 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 (PubMed:16414182, PubMed:16996051). Involved in different aspects of gene regulation including promoter activation or repression (PubMed:9525897). Binds to the DNA consensus sequence 5'- [AT]AACAA[AT]-3' (PubMed:11563911, PubMed:1425584, PubMed:15170344, PubMed:8159753, PubMed:8265659). SRY HMG box recognizes DNA by partial intercalation in the minor groove and promotes DNA bending (PubMed:11563911, PubMed:1425584, PubMed:15170344, PubMed:16762365, PubMed:8159753, PubMed:8265659). Also involved in pre-mRNA splicing (PubMed:11818535). In male adult brain involved in the maintenance of motor functions of dopaminergic neurons (By similarity).

Cellular Location

Nucleus speckle. Cytoplasm Nucleus. Note=Acetylation contributes to its nuclear localization and deacetylation by HDAC3 induces a cytoplasmic delocalization (PubMed:15297880). Colocalizes with SOX6 in speckles (PubMed:11818535). Colocalizes with CAML in the nucleus (PubMed:15746192). Colocalizes in the nucleus with ZNF208 isoform KRAB- O and tyrosine hydroxylase (TH) (By similarity). Nuclear import is facilitated by XPO4, a protein that usually acts as a nuclear export signal receptor (PubMed:19349578). {ECO:0000250|UniProtKB:Q05738, ECO:0000269|PubMed:11818535, ECO:0000269|PubMed:15297880, ECO:0000269|PubMed:15746192, ECO:0000269|PubMed:19349578}

References

1.J Biol Chem. 2009 Dec 18;284(51):35670-80.2.FASEB J. 2009 Nov;23(11):4029-38.

Images

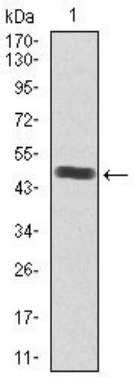


Figure 1: Western blot analysis using SRY mAb against human SRY recombinant protein. (Expected MW is 49.4 kDa)

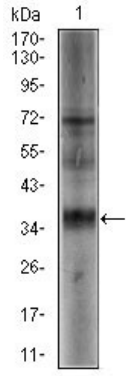
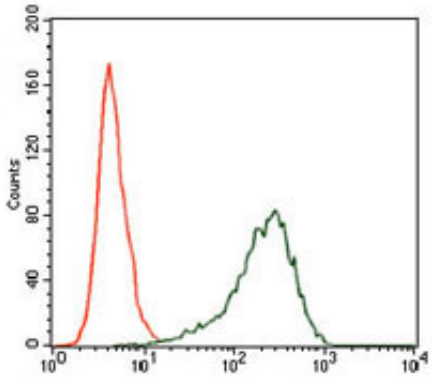


Figure 2: Western blot analysis using SRY mouse mAb against NTERA-2 (1) cell lysate.

Figure 3: Flow cytometric analysis of HepG2 cells using SRY mouse mAb (green) and negative control (red).



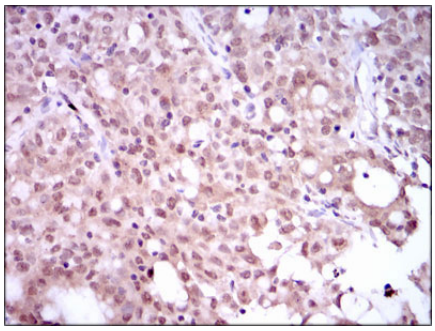


Figure 4: Immunohistochemical analysis of paraffin-embedded cervical cancer tissues using SRY mouse mAb with DAB staining.

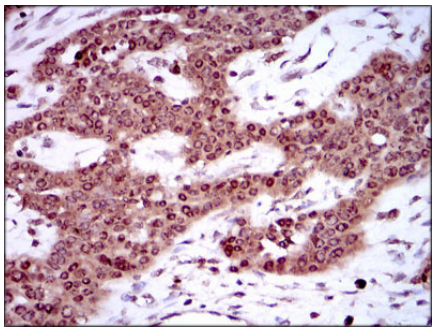


Figure 5: Immunohistochemical analysis of paraffin-embedded ovarian cancer tissues using SRY mouse mAb with DAB staining.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.