

**MSY2 Polyclonal Antibody**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP54805****Specification****MSY2 Polyclonal Antibody - Product Information**

Application	WB, IHC-P, IHC-F, IF, ICC, E
Primary Accession	<a href="#">Q9Y2T7</a>
Reactivity	Rat, Pig, Dog, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	38 KDa
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from Human MSY2/YBOX2/DBPC
Epitope Specificity	101-185/364
Isotype	IgG
<b>Purity</b>	
affinity purified by Protein A	
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cytoplasm. Nucleus.
SIMILARITY	Contains 1 CSD (cold-shock) domain.
SUBUNIT	Found in a mRNP complex with PABPC1 and CSDA
Post-translational modifications	Phosphorylated during oocyte maturation and dephosphorylated following egg activation. Phosphorylated in vitro by a kinase activity associated with testicular mRNPs. Dephosphorylation leads to a decrease in its affinity to bind RNA in vitro.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

**Background Descriptions**

MSY2 and YB-2 (MSY3,4) belong to the Y-box family of multifunctional proteins that regulate both transcription and translation (1-3). Y-box proteins interact with a wide variety of nucleic acid structures to act as transcription factors and mRNA masking proteins (1). The modular structure of Y-box proteins includes a highly conserved N-terminal cold-shock domain (CSD, equivalent to the bacterial cold-shock proteins) and four basic C-terminal domains containing arginine clusters and aromatic residues (4). MSY2 is expressed in testis and ovary where it may repress translation of parental mRNA (5,6). The gene encoding human MSY2 maps to chromosome 17p11.2-13.1 (5). YB-2 (MSY3,4 in mouse) is also known as DNA binding protein A and is highly expressed in the testis, heart and muscle (7,8). MSY2 and YB-2 bind to the consensus sequence 5'-UCCAUCA-3' contained in the Y-box element (9).

**MSY2 Polyclonal Antibody - Additional Information**

**Gene ID 51087****Other Names**

Y-box-binding protein 2, Contrin, DNA-binding protein C, Dbpc, Germ cell-specific Y-box-binding protein, MSY2 homolog, YBX2, CSDA3, MSY2

**Target/Specificity**

Expressed in oocytes and testicular germ cells in the stage of spermatogonia to spermatocyte. Also observed placental trophoblasts, as well as in vascular smooth muscle cells in the pulmonary artery, myocardium, and skeletal muscle. Undetectable in epithelial cells in respiratory, gastrointestinal, and urogenital tracts. Up-regulated in various carcinomas and germ cell tumors (at protein level).

**Dilution**

<span class = "dilution\_WB">WB~~1:1000</span><br \><span class = "dilution\_IHC-P">IHC-P~~N/A</span><br \><span class = "dilution\_IHC-F">IHC-F~~N/A</span><br \><span class = "dilution\_IF">IF~~1:50~200</span><br \><span class = "dilution\_ICC">ICC~~N/A</span><br \><span class = "dilution\_E">E~~N/A</span>

**Format**

0.01M TBS(pH7.4), 0.09% (W/V) sodium azide and 50% Glyce

**Storage**

Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

**MSY2 Polyclonal Antibody - Protein Information**

**Name** YBX2

**Synonyms** CSDA3, MSY2

**Function**

Major constituent of messenger ribonucleoprotein particles (mRNPs). Involved in the regulation of the stability and/or translation of germ cell mRNAs. Binds to Y-box consensus promoter element. Binds to full-length mRNA with high affinity in a sequence-independent manner. Binds to short RNA sequences containing the consensus site 5'-UCCAUCA- 3' with low affinity and limited sequence specificity. Its binding with maternal mRNAs is necessary for its cytoplasmic retention. May mark specific mRNAs (those transcribed from Y-box promoters) in the nucleus for cytoplasmic storage, thereby linking transcription and mRNA storage/translational delay (By similarity).

**Cellular Location**

Cytoplasm. Nucleus

**Tissue Location**

Expressed in oocytes and testicular germ cells in the stage of spermatogonia to spermatocyte. Also observed placental trophoblasts, as well as in vascular smooth muscle cells in the pulmonary artery, myocardium, and skeletal muscle. Undetectable in epithelial cells in respiratory, gastrointestinal, and urogenital tracts. Up-regulated in various carcinomas and germ cell tumors (at protein level).

**MSY2 Polyclonal Antibody - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**MSY2 Polyclonal Antibody - Images**