

HMBOX1 Polyclonal Antibody
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP56928**Specification****HMBOX1 Polyclonal Antibody - Product Information**

Application	WB, IHC-P, IHC-F, IF, ICC
Primary Accession	Q6NT76
Reactivity	Rat, Pig, Dog, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	47 KDa
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human HMBOX1
Epitope Specificity	151-250/420
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Nucleus. Cytoplasm. Predominantly detected in cytoplasm.
SIMILARITY	Contains 1 homeobox DNA-binding domain.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Background Descriptions

HMBOX1 is a 420 amino acid nuclear protein that contains one homeobox DNA-binding domain and is thought to function as a putative transcription factor. HMBOX1 is expressed as three alternatively spliced isoforms and is encoded by a gene which maps to human chromosome 8. Consisting of nearly 146 million base pairs, chromosome 8 encodes over 800 genes and is associated with a variety of diseases and malignancies. Schizophrenia, bipolar disorder, Trisomy 8, Pfeiffer syndrome, congenital hypothyroidism, Waardenburg syndrome and some leukemias and lymphomas are thought to occur as a result of defects in specific genes that maps to chromosome 8.

HMBOX1 Polyclonal Antibody - Additional Information**Gene ID 79618****Other Names**

Homeobox-containing protein 1, Homeobox telomere-binding protein 1, Telomere-associated homeobox-containing protein 1, HMBOX1 {ECO:0000303|PubMed:16825764}

Target/Specificity

Ubiquitous. Detected in pancreas, brain, spleen, placenta, prostate, thymus, liver, heart, bone marrow, skeletal muscle, stomach, uterus, testis, kidney, ovary, and colon.

Dilution

WB~~1:1000<br \>IHC-P~~N/A<br \>IHC-F~~N/A<br \>IF~~1:50~200<br \>ICC~~N/A

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.

HMBOX1 Polyclonal Antibody - Protein Information

Name HMBOX1 {ECO:0000303|PubMed:16825764}

Function

Binds directly to 5'-TTAGGG-3' repeats in telomeric DNA (PubMed:23685356, PubMed:23813958). Associates with the telomerase complex at sites of active telomere processing and positively regulates telomere elongation (PubMed:23685356). Important for TERT binding to chromatin, indicating a role in recruitment of the telomerase complex to telomeres (By similarity). Also plays a role in the alternative lengthening of telomeres (ALT) pathway in telomerase-negative cells where it promotes formation and/or maintenance of ALT-associated promyelocytic leukemia bodies (APBs) (PubMed:23813958). Enhances formation of telomere C-circles in ALT cells, suggesting a possible role in telomere recombination (PubMed:23813958). Might also be involved in the DNA damage response at telomeres (PubMed:23813958).

Cellular Location

Nucleus. Cytoplasm. Chromosome, telomere. Nucleus, Cajal body. Nucleus, PML body. Note=Predominantly detected in cytoplasm (PubMed:16825764, PubMed:19728927). Localizes in a dynamic manner to actively processed telomeres (PubMed:23685356). Localizes to the periphery of Cajal bodies (PubMed:23685356). Associates with PML nuclear bodies in telomerase-negative cells (PubMed:23813958)

Tissue Location

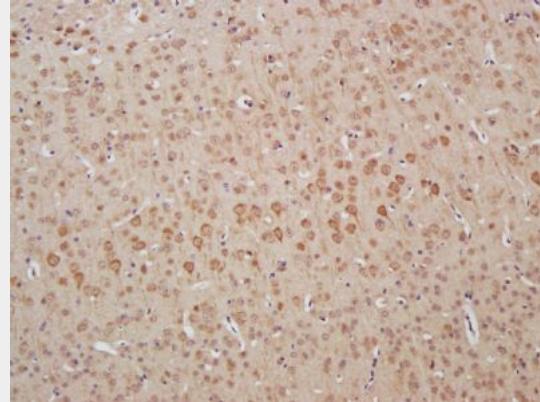
Ubiquitous. Detected in pancreas, brain, spleen, placenta, prostate, thymus, liver, heart, bone marrow, skeletal muscle, stomach, uterus, testis, kidney, ovary, colon, lung, cardiac muscle and thyroid gland.

HMBOX1 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](#)

HMBOX1 Polyclonal Antibody - Images

Paraformaldehyde-fixed, paraffin embedded (Mouse brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (HMBOX1) Polyclonal Antibody, Unconjugated (bs-18047R) at 1:400 overnight at 4°C, followed by a conjugated secondary antibody (sp-0023) for 20 minutes and DAB staining.