

HMBOX1 Rabbit pAb

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Catalog # AP56928

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q6NT76
Reactivity	Mouse
Predicted	Rat, Pig, Dog, Human, Rabbit, Zebrafish, Chicken, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	47278
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.
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.

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}
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
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.

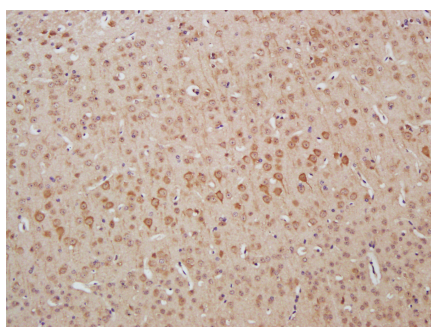
Protein Information

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.

Background

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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 (AP56928) at 1:400 overnight at 4°C, followed by a conjugated secondary antibody (sp-0023) for 20 minutes and DAB staining.

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