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mtRNA polymerase Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP56888

Product Information

Application	WB, IHC-P, IHC-F, IF, ICC, E
Primary Accession	O00411
Reactivity	Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	138620
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human mtRNA polymerase
Epitope Specificity	951-1050/1230
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	Mitochondrion.
SIMILARITY	Belongs to the phage and mitochondrial RNA polymerase family.
SUBUNIT	Interacts with TFB1M and TFB2M, leading to the stimulation of transcription. Interacts with TEFM.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	This gene encodes a mitochondrial DNA-directed RNA polymerase. The gene product is responsible for mitochondrial gene expression as well as for providing RNA primers for initiation of replication of the mitochondrial genome. Although this polypeptide has the same function as the three nuclear DNA-directed RNA polymerases, it is more closely related to RNA polymerases of phage and mitochondrial polymerases of lower eukaryotes. [provided by RefSeq, Jul 2008]

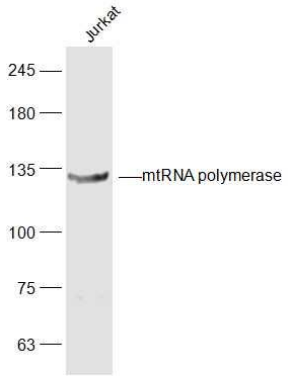
Additional Information

Gene ID	5442
Other Names	DNA-directed RNA polymerase, mitochondrial, MtRPOL, 2.7.7.6, POLRMT (HGNC:9200)
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,ICC=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Format	0.01M TBS(pH7.4) with 1% BSA, 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.

Protein Information

Name	POLRMT (HGNC:9200)
Function	DNA-dependent RNA polymerase catalyzes the transcription of mitochondrial DNA into RNA using the four ribonucleoside triphosphates as substrates (PubMed:21278163, PubMed:33602924). Component of the mitochondrial transcription initiation complex, composed at least of TFB2M, TFAM and POLRMT that is required for basal transcription of mitochondrial DNA (PubMed:29149603). In this complex, TFAM recruits POLRMT to a specific promoter whereas TFB2M induces structural changes in POLRMT to enable promoter opening and trapping of the DNA non- template strand (PubMed:29149603). Has DNA primase activity (PubMed:18685103, PubMed:33602924). Catalyzes the synthesis of short RNA primers that are necessary for the initiation of lagging-strand DNA synthesis from the origin of light-strand DNA replication (OriL) (PubMed:18685103, PubMed:33602924).
Cellular Location	Mitochondrion

Images



Sample:
Jurkat(Human) Cell Lysate at30 ug
Primary: Anti-mtRNA polymerase (AP56888) at 1/300 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 134 kD
Observed band size: 134 kD