

For Research Use Only

POLRMT Polyclonal antibody

Catalog Number: 17748-1-AP

1 Publications



Basic Information

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|---|--|--|
| Catalog Number: 17748-1-AP | GenBank Accession Number: BC098387 | Purification Method: Antigen affinity purification |
| Size: 150ul , Concentration: 150 ug/ml by Nanodrop; | GeneID (NCBI): 5442 | Recommended Dilutions: WB 1:200-1:1000 |
| Source: Rabbit | UNIPROT ID: O00411 | IHC 1:50-1:500 |
| Isotype: IgG | Full Name: polymerase (RNA) mitochondrial (DNA directed) | IF/ICC 1:50-1:500 |
| Immunogen Catalog Number: AG12012 | Calculated MW: 1230 aa, 139 kDa | |
| | Observed MW: 130-139 kDa | |

Applications

| | |
|--|---|
| Tested Applications: WB, IHC, IF/ICC, ELISA | Positive Controls: WB : HepG2 cells, COLO 320 cells, HeLa cells |
| Cited Applications: WB | IHC : human ovary cancer tissue, |
| Species Specificity: human | IF/ICC : U2OS cells, |
| Cited Species: human | |
| Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0 | |

Background Information

Mitochondrial DNA-dependent RNA polymerase (POLRMT) is responsible for the transcription of mitochondrial genome encoding key components of oxidative phosphorylation. Structurally, POLRMT comprises four main domains: the N-terminal extension, a pentatricopeptide repeat (PPR) domain, the N-terminal domain, and the C-terminal domain(PMID: 33602924). POLRMT requires transcription factor B2M (TFB2M) and transcription factor AM (TFAM) for mitochondrial RNA transcription. POLRMT is overexpressed at both the mRNA and protein level in several cancers, including breast, skin, lung, endometrial cancer, and osteosarcomas(PMID: 37371693).

Notable Publications

| Author | Pubmed ID | Journal | Application |
|-----------|-----------|---------------|-------------|
| Yijie Hao | 39609546 | Nat Chem Biol | WB |

Storage

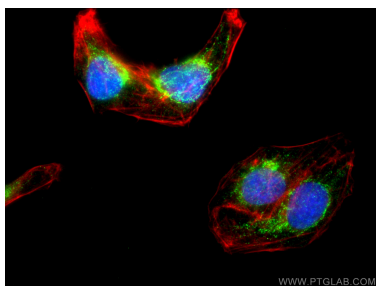
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

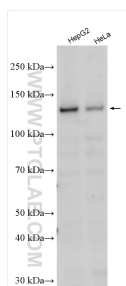
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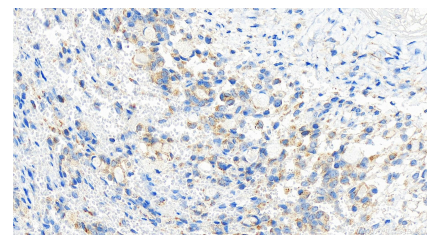
Selected Validation Data



Immunofluorescent analysis of (4% PFA) fixed U2OS cells using POLRMT antibody (17748-1-AP) at dilution of 1:200 and CoraLite® 488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L), CL594-Phalloidin (red).



Various lysates were subjected to SDS PAGE followed by western blot with 17748-1-AP (POLRMT antibody) at dilution of 1:400 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded human ovary cancer tissue slide using 17748-1-AP (POLRMT antibody) at dilution of 1:200 (under 20x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).