

**GRIM19 Polyclonal Antibody**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP58077****Specification**

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**GRIM19 Polyclonal Antibody - Product Information**

Application	WB, IHC-P, IHC-F, IF, ICC, E
Primary Accession	<a href="#">O9P0J0</a>
Reactivity	Rat, Pig
Host	Rabbit
Clonality	Polyclonal
Calculated MW	16 KDa
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human GRIM19
Epitope Specificity	51-144/144
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	Mitochondrion inner membrane; Single-pass membrane protein; Matrix side. Nucleus. Note=May be translocated into the nucleus upon IFN/RA treatment. Belongs to the complex I NDUFA13 subunit family.
SIMILARITY	
SUBUNIT	Complex I is composed of 45 different subunits. Interacts with CARD15, but not with CARD4. Interacts with STAT3, but not with STAT1, STAT2 and STAT5A. Interacts with HHV-8 IRF1, in the nucleus, with HPV-16 E6 and SV40 LT. Interacts with OLFM4.
DISEASE	Defects in NDUFA13 may be a cause of susceptibility to Hurthle cell thyroid carcinoma (HCTC) [MIM:607464]. Hurthle cell thyroid carcinoma accounts for approximately 3% of all thyroid cancers. Although they are classified as variants of follicular neoplasms, they are more often multifocal and somewhat more aggressive and are less likely to take up iodine than are other follicular neoplasms.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

**Background Descriptions**

A novel gene, Genes associated with Retinoid IFN induced Mortality (GRIM) GRIM19 gene was identified. Antisense expression of GRIM19 confers a strong resistance against IFN/RA induced

death by reducing the intracellular levels of GRIM19 protein. Overexpression of GRIM19 enhances cell death in response to IFN/RA. GRIM19 is primarily a nuclear protein whose expression is induced by the IFN/RA combination. These data indicate that GRIM19 is a novel cell death regulatory molecule.

## **GRIM19 Polyclonal Antibody - Additional Information**

**Gene ID** 51079

### **Other Names**

NADH dehydrogenase [ubiquinone] 1 alpha subcomplex subunit 13, Cell death regulatory protein GRIM-19, Complex I-B16.6, CI-B16.6, Gene associated with retinoic and interferon-induced mortality 19 protein, GRIM-19, Gene associated with retinoic and IFN-induced mortality 19 protein, NADH-ubiquinone oxidoreductase B16.6 subunit, NDUFA13, GRIM19

### **Target/Specificity**

Widely expressed, with highest expression in heart, skeletal muscle, liver, kidney and placenta. In intestinal mucosa, down-regulated in areas involved in Crohn disease and ulcerative colitis.

### **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>

### **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.

## **GRIM19 Polyclonal Antibody - Protein Information**

**Name** NDUFA13

**Synonyms** GRIM19

### **Function**

Accessory subunit of the mitochondrial membrane respiratory chain NADH dehydrogenase (Complex I), that is believed not to be involved in catalysis (PubMed:<a href="http://www.uniprot.org/citations/27626371" target="\_blank">27626371</a>). Complex I functions in the transfer of electrons from NADH to the respiratory chain. The immediate electron acceptor for the enzyme is believed to be ubiquinone (PubMed:<a href="http://www.uniprot.org/citations/27626371" target="\_blank">27626371</a>). Involved in the interferon/all-trans-retinoic acid (IFN/RA) induced cell death. This apoptotic activity is inhibited by interaction with viral IRF1. Prevents the transactivation of STAT3 target genes. May play a role in CARD15-mediated innate mucosal responses and serve to regulate intestinal epithelial cell responses to microbes (PubMed:<a href="http://www.uniprot.org/citations/15753091" target="\_blank">15753091</a>).

### **Cellular Location**

Mitochondrion inner membrane; Single-pass membrane protein; Matrix side. Nucleus Note=Localizes mainly in the mitochondrion (PubMed:12628925). May be translocated into the nucleus upon IFN/RA treatment

### Tissue Location

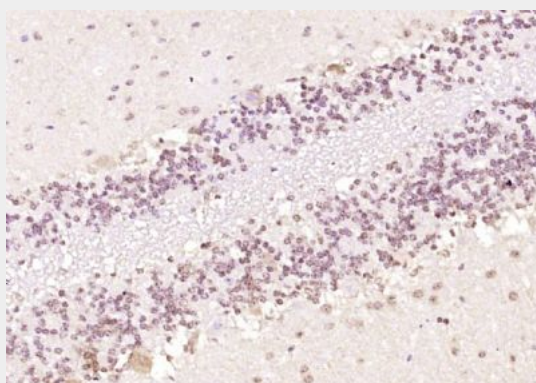
Widely expressed, with highest expression in heart, skeletal muscle, liver, kidney and placenta. In intestinal mucosa, down-regulated in areas involved in Crohn disease and ulcerative colitis.

### GRIM19 Polyclonal Antibody - Protocols

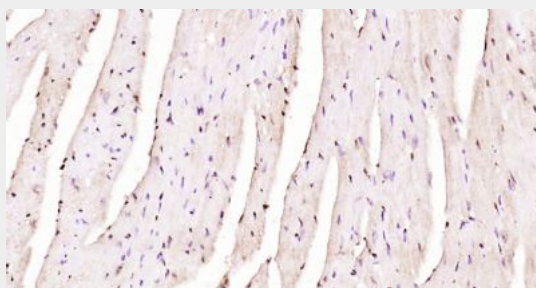
Provided below are standard protocols that you may find useful for product applications.

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

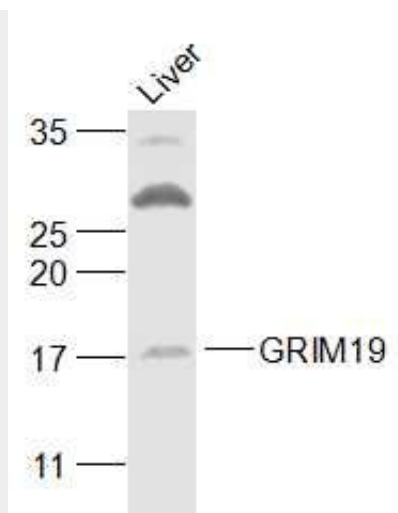
### GRIM19 Polyclonal Antibody - Images



Paraformaldehyde-fixed, paraffin embedded (mouse cerebellum tissue); 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 (GRIM19) Polyclonal Antibody, Unconjugated (bs-3594R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Paraformaldehyde-fixed, paraffin embedded (mouse heart tissue); 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 (GRIM19) Polyclonal Antibody, Unconjugated (bs-3594R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



**Sample:**

Liver (Mouse) Lysate at 40 ug

Primary: Anti-GRIM19 (bs-3594R) at 1/1000 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 16 kD

Observed band size: 17 kD