10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

GRIM19 Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP58077

Product Information

Application	WB, IHC-P, IHC-F, IF, ICC, E
Primary Accession	Q9P0J0
Reactivity	Rat, Pig
Host	Rabbit
Clonality	Polyclonal
Calculated MW	16698
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human GRIM19
Epitope Specificity	51-144/144
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 inner membrane; Single-pass membrane protein; Matrix side. Nucleus. Note=May be translocated into the nucleus upon IFN/RA treatment.
SIMILARITY	Belongs to the complex I NDUFA13 subunit family.
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.

Additional Information

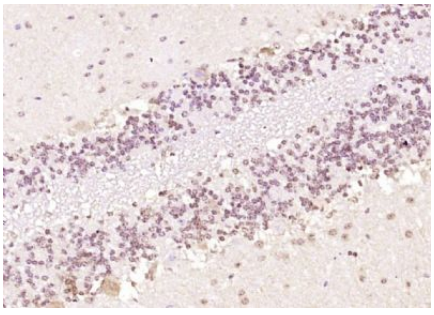
Gene ID	51079
Other Names	NADH dehydrogenase [ubiquinone] 1 alpha subcomplex subunit 13, Cell

	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	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,ICC=1:25,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.

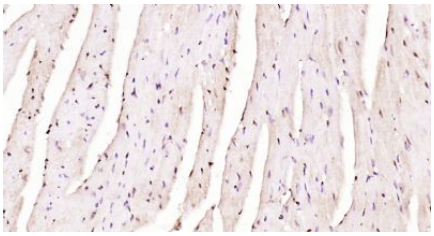
Protein Information

Name	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:27626371). 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:27626371). 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:15753091).
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.

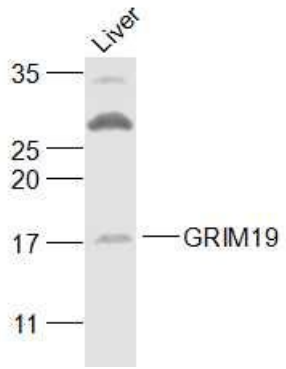
Images



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 (AP58077) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand 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 (AP58077) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.



Sample:
Liver (Mouse) Lysate at 40 ug
Primary: Anti-GRIM19 (AP58077) at 1/1000 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 16 kD
Observed band size: 17 kD