

DENR Antibody
Catalog # ASC11786**Specification**

DENR Antibody - Product Information

Application	WB, IHC-P, IF, E
Primary Accession	O43583
Other Accession	NP_003668 , 27501446
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	Predicted: 22 kDa

Application Notes	Observed: 22 kDa KDa DENR antibody can be used for detection of DENR by Western blot at 1 - 2 µg/ml. Antibody can also be used for Immunohistochemistry at 5 µg/mL. For Immunofluorescence start at 20 µg/mL.
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DENR Antibody - Additional Information

Gene ID	8562
Target/Specificity	
DENR; DENR antibody is human, mouse and rat reactive.	

Reconstitution & Storage

DENR antibody can be stored at 4°C for three months and -20°C, stable for up to one year.

Precautions

DENR Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

DENR Antibody - Protein Information

Name DENR

Synonyms DRP1

Function

Translation regulator forming a complex with MCTS1 to promote translation reinitiation. Translation reinitiation is the process where the small ribosomal subunit remains attached to the mRNA following termination of translation of a regulatory upstream ORF (uORF), and resume scanning on the same mRNA molecule to initiate translation of a downstream ORF, usually the main ORF (mORF). The MCTS1/DENR complex is pivotal to two linked mechanisms essential for translation reinitiation. Firstly, the dissociation of deacylated tRNAs from post-termination 40S ribosomal complexes during ribosome recycling. Secondly, the recruitment in an EIF2-independent manner of aminoacylated initiator tRNA to P site of 40S ribosomes for a new round of translation.

This regulatory mechanism governs the translation of more than 150 genes which translation reinitiation is MCTS1/DENR complex-dependent.

Cellular Location

Cytoplasm.

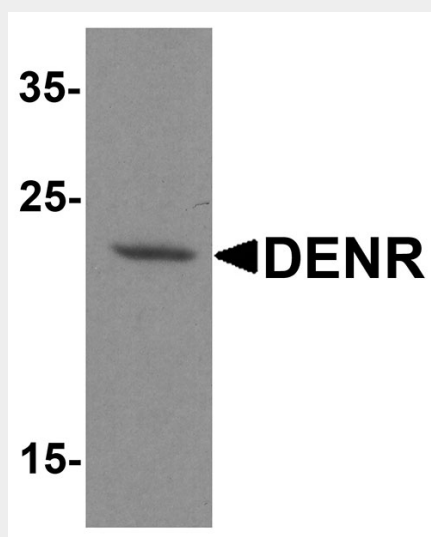
Tissue Location

Highly expressed in heart and skeletal muscle and moderately expressed in the brain, placenta, liver and pancreas. Weakly expressed in the lung and kidney.

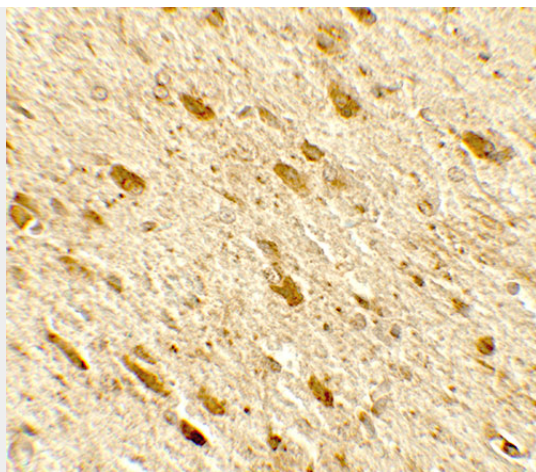
DENR Antibody - Protocols

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

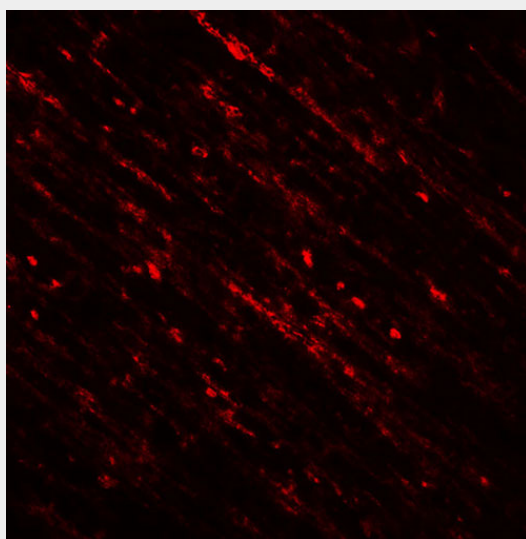
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

DENR Antibody - Images

Western blot analysis of DENR in human brain tissue lysate with DENR antibody at 1 µg/ml.



Immunohistochemistry of DENR in rat brain tissue with DENR antibody at 5 µg/mL.



Immunofluorescence of DENR in rat brain tissue with DENR antibody at 20 µg/mL.

DENR Antibody - Background

DENR (density-regulated protein), also designated DRP or smooth muscle cell associated protein 3 (SMAP-3), is a 198 amino acid protein that may be involved in the translation of target mRNAs by scanning and recognition of the initiation codon (1). It plays a role in the modulation of the translational profile of a subset of cancer-related mRNAs when recruited to the translational initiation complex by the oncogene MCTS1 (2,3). DENR contains a SUI1 domain and is found in a variety of tissues with highest levels present in skeletal and cardiac muscle. It is up-regulated in ovarian and breast cancer cells by ERBB2 overexpression (4).

DENR Antibody - References

- Deyo JE, Chiao PJ, Tainsky MA. DRP, a novel protein expressed at high cell density but not during growth arrest. *DNA Cell Biol.* 1998; 17:437-47.
- Skabkin MA, Skabkina OV, Dhote V, et al. Activities of Ligatin and MCT-1/DENR in eukaryotic translation initiation and ribosomal recycling. *Genes Dev.* 2010; 24:1787-801.
- Mazan-Mamczarz K and Gartenhaus RB. Post-transcriptional control of the MCT1-associated protein DENR/DRP by RNA-binding protein AUF1. *Cancer Genomics Proteomics* 2007; 4:233-9.
- Oh JJ, Grosshans DR, Wong SG et al. Identification of differentially expressed genes associated with HER-2/neu overexpression in human breast cancer cells. *Nucleic Acids Res.* 1999; 27:4008-17.