

**MECR Antibody**  
Catalog # ASC11588**Specification****MECR Antibody - Product Information**

Application	IF
Primary Accession	<a href="#">Q9BV79</a>
Other Accession	<a href="#">NP_057095</a> , <a href="#">51102</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	Predicted: 41 kDa KDa
Application Notes	MECR antibody can be used for detection of MECR by Western blot at 1 - 2 µg/mL.

**MECR Antibody - Additional Information**Gene ID **51102****Target/Specificity**

Rabbit polyclonal MECR antibody was raised against a 15 amino acid peptide near the carboxy terminus of human MECR. <br><br>The immunogen is located within amino acids 300 - 350 of MECR.

**Reconstitution & Storage**

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

**Precautions**

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

**MECR Antibody - Protein Information**

Name MECR

Synonyms NBRF1

**Function**

Catalyzes the NADPH-dependent reduction of trans-2-enoyl thioesters in mitochondrial fatty acid synthesis (fatty acid synthesis type II). Fatty acid chain elongation in mitochondria uses acyl carrier protein (ACP) as an acyl group carrier, but the enzyme accepts both ACP and CoA thioesters as substrates in vitro. Displays a preference for medium-chain over short- and long-chain substrates (PubMed: <a href="http://www.uniprot.org/citations/12654921" target="\_blank">12654921</a>, PubMed: <a href="http://www.uniprot.org/citations/18479707" target="\_blank">18479707</a>, PubMed: <a href="http://www.uniprot.org/citations/27817865" target="\_blank">27817865</a>). May provide the octanoyl chain used for lipoic acid biosynthesis, regulating protein lipoylation and mitochondrial respiratory activity particularly in Purkinje cells (By similarity). Involved in iron homeostasis; affecting Fe-S cluster assembly and ceramide metabolism (PubMed: <a href="http://www.uniprot.org/citations/37653044" target="\_blank">37653044</a>)

target="\_blank">37653044</a>). Required for proper morphology and bioenergetic functions of mitochondria (PubMed:<a href="http://www.uniprot.org/citations/37653044" target="\_blank">37653044</a>). Required for maintenance of neurons (By similarity).

#### Cellular Location

[Isoform 1]: Mitochondrion

#### Tissue Location

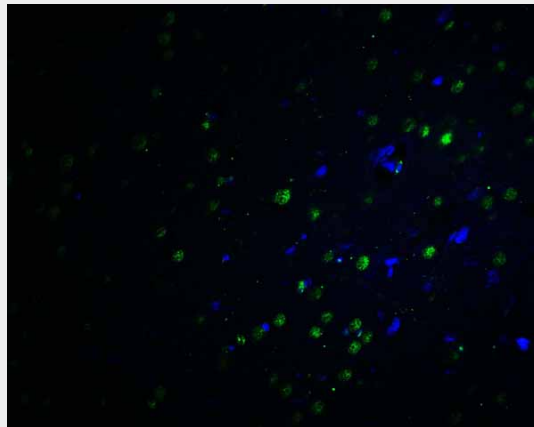
Highly expressed in skeletal and heart muscle. Expressed at lower level in placenta, liver, kidney and pancreas Weakly or not expressed in lung.

### MECR 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](#)

### MECR Antibody - Images



Immunofluorescence of PLAGL2 in rat brain tissue with PLAGL2 antibody at 20 µg/ml.

### MECR Antibody - Background

MECR Antibody: The mitochondrial trans-2-enoyl-CoA reductase (MECR), was initially identified as nuclear receptor-binding factor 1 (NRBF1), which can interact with a multitude of nuclear hormone receptors in the presence of the respective ligands. MECR has been shown to be part of the mitochondrial fatty acid synthesis (FAS II) system and to catalyze the NADPH-dependent reduction of 2-enoyl thioesters, generating saturated acyl-groups. Overexpression of this gene in transgenic mice can lead to cardiac abnormalities, suggesting that inappropriate expression of genes of FAS II can result in the development of hereditary cardiomyopathy.

### MECR Antibody - References

Masuda N, Yasumo H, Furusawa T, et al. Nuclear receptor binding factor-1 (NRBF-1), a protein

interacting with a wide spectrum of nuclear hormone receptors. *Gene* 1998; 221:225-33.  
Chen Z, Leskinen H, Liimatta E, et al. Myocardial overexpression of Mecn, a gene of mitochondrial FAS II leads to cardiac dysfunction in mouse. *PLoS One* 2009; 4:e5589.