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MECR Rabbit pAb

Catalog # AP98126

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	Q9BV79
Other Accession	Q9BV79
Reactivity	Mouse
Predicted	Rat, Human, Rabbit, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	40462
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human MECR
Epitope Specificity	131-230/373
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the zinc-containing alcohol dehydrogenase family. Quinone oxidoreductase subfamily.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Mecr is a 373 amino acid mitochondrial protein that may play a role in fatty acid synthesis. Existing as two alternatively spliced isoforms, Mecr is highly expressed in cardiac and skeletal muscle, with lower levels found in pancreas, kidney, placenta and liver. Mecr forms a homodimer and belongs to the zinc-containing alcohol dehydrogenase family and quinone oxidoreductase subfamily. Mecr reduces trans-2-enoyl-CoA to acyl-CoA in an NADPH-dependent manner and is encoded by a gene that maps to human chromosome 1p35.3. Human chromosome 1 spans 260 million base pairs, contains over 3,000 genes, comprises nearly 8% of the human genome and houses a large number of disease-associated genes, including those that are involved in familial adenomatous polyposis, Stickler syndrome, Parkinson's disease, Gaucher disease, schizophrenia and Usher syndrome.

Additional Information

Gene ID	51102
Other Names	CGI-63; DYTOABG; ETR1; FASN2B; NRBF1; OPA16; NRBF-1; MECR_HUMAN; MECR; 2-enoyl thioester reductase; Nuclear receptor-binding factor 1 (HsNrbf-1 | NRBF-1); 1.3.1.104; NBRF1; MECR_MOUSE; Nuclear receptor-binding factor 1 (NRBF-1); MECR_RAT; mitochondrial trans-2-enoyl-CoA reductase; nuclear receptor binding factor 1; mitochondrial 2-enoyl thioester reductase
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500

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	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:12654921, PubMed:18479707, PubMed:27817865). 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:37653044). Required for proper morphology and bioenergetic functions of mitochondria (PubMed:37653044). 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.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.