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CRAT Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP6565a

Product Information

Application	WB, IHC-P, E
Primary Accession	P43155
Reactivity	Human
Predicted	Mouse, Rat, Bovine, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB19231
Calculated MW	70858
Antigen Region	66-96

Additional Information

Gene ID	1384
Other Names	Carnitine O-acetyltransferase, Carnitine acetylase, Carnitine acetyltransferase, CAT, CrAT, CRAT, CAT1
Target/Specificity	This CRAT antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 66-96 amino acids from the N-terminal region of human CRAT.
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	CRAT Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CRAT (HGNC:2342)
Synonyms	CAT1
Function	Catalyzes the reversible transfer of acyl groups from carnitine to coenzyme

	A (CoA) and regulates the acyl-CoA/CoA ratio. Also plays a crucial role in the transport of fatty acids for beta- oxidation (PubMed:15099582, PubMed:29395073). Responsible for the synthesis of short- and branched-chain acylcarnitines (PubMed:23485643). Active towards some branched-chain amino acid oxidation pathway (BCAAO) intermediates (PubMed:23485643). Trans-2- enoyl-CoAs and 2-methylacyl-CoAs are poor substrates (PubMed:23485643).
Cellular Location	Endoplasmic reticulum. Peroxisome. Mitochondrion inner membrane; Peripheral membrane protein; Matrix side [Isoform 2]: Peroxisome
Tissue Location	Mostly in skeletal muscle, less in heart, liver and pancreas, only weakly detectable in brain, placenta, lung and kidney

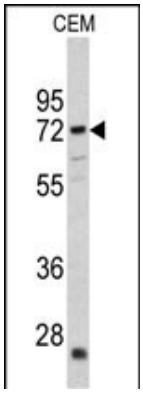
Background

CRAT is carnitine acetyltransferase (CRAT), which is a key enzyme in the metabolic pathway in mitochondria, peroxisomes and endoplasmic reticulum. CRAT catalyzes the reversible transfer of acyl groups from an acyl-CoA thioester to carnitine and regulates the ratio of acylCoA/CoA in the subcellular compartments.

References

Govindasamy,L., J. Struct. Biol. 146 (3), 416-424 (2004)
Jogl,G., Cell 112 (1), 113-122 (2003)

Images



Western blot analysis of CRAT antibody (N-term) (Cat. #AP6565a) in CEM cell line lysates (35ug/lane). CRAT (arrow) was detected using the purified Pab.



CRAT Antibody (N-term) (Cat. #AP6565a) IHC analysis in formalin fixed and paraffin embedded human Skeletal muscle followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the CRAT Antibody (N-term) for immunohistochemistry. Clinical relevance has not been evaluated.

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