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COX7A1 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP16006c

Product Information

Application	WB, E
Primary Accession	P24310
Other Accession	NP_001855.1
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB19583
Calculated MW	9118
Antigen Region	10-38

Additional Information

Gene ID	1346
Other Names	Cytochrome c oxidase subunit 7A1, mitochondrial, Cytochrome c oxidase subunit VIIa-heart, Cytochrome c oxidase subunit VIIa-H, Cytochrome c oxidase subunit VIIa-muscle, Cytochrome c oxidase subunit VIIa-M, COX7A1, COX7AH
Target/Specificity	This COX7A1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 10-38 amino acids from the Central region of human COX7A1.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
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	COX7A1 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	COX7A1
Synonyms	COX7AH

Function	Component of the mitochondrial respiratory complex IV (CIV, also named cytochrome c oxidase complex), the last enzyme in the mitochondrial electron transport chain which drives oxidative phosphorylation (By similarity). The CIV complex is the component of the respiratory chain that catalyzes the reduction of oxygen to water (By similarity). Acts as an assembly factor that specifically drives the homodimerization of CIV complexes, mediating the formation of mitochondrial respiratory supercomplexes (respirasomes) containing two CIV: supercomplxes with two molecules of CIV show improved activity (By similarity). Despite being highly expressed in brown adipose tissue, not required for thermogenesis (By similarity).
Cellular Location	Mitochondrion inner membrane {ECO:0000250|UniProtKB:P07470}; Single-pass membrane protein {ECO:0000250|UniProtKB:P07470}

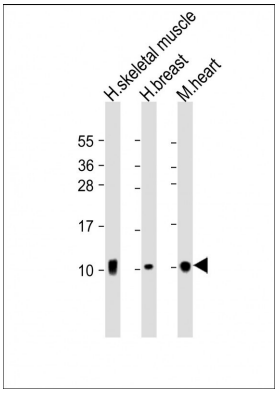
Background

Cytochrome c oxidase (COX), the terminal component of the mitochondrial respiratory chain, catalyzes the electron transfer from reduced cytochrome c to oxygen. This component is a heteromeric complex consisting of 3 catalytic subunits encoded by mitochondrial genes and multiple structural subunits encoded by nuclear genes. The mitochondrially-encoded subunits function in electron transfer, and the nuclear-encoded subunits may function in the regulation and assembly of the complex. This nuclear gene encodes polypeptide 1 (muscle isoform) of subunit VIIa and the polypeptide 1 is present only in muscle tissues. Other polypeptides of subunit VIIa are present in both muscle and nonmuscle tissues, and are encoded by different genes.

References

Bailey, S.D., et al. Diabetes Care (2010) In press :
Talmud, P.J., et al. Am. J. Hum. Genet. 85(5):628-642(2009)
Lazarou, M., et al. FEBS J. 276(22):6701-6713(2009)
Ronn, T., et al. Diabetologia 51(7):1159-1168(2008)
Grimwood, J., et al. Nature 428(6982):529-535(2004)

Images



All lanes : Anti-COX7A1 Antibody (Center) at 1:2000 dilution Lane 1: human skeletal muscle lysate Lane 2: human breast lysate Lane 3: mouse heart lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 9 kDa Blocking/Dilution buffer: 5% NFDM/TBST.