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CARKD Rabbit pAb

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Catalog # AP59245

Product Information

Application	WB
Primary Accession	Q8IW45
Reactivity	Human
Predicted	Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	36576
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human CARKD
Epitope Specificity	251-347/347
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Mitochondrion (By similarity).
SIMILARITY	Belongs to the nnrD/CARKD family.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	CARKD is a 347 amino acid protein that belongs to the YjeF family and exists as three alternatively spliced isoforms. Containing one YjeF C-terminal domain, CARKD is encoded by a gene that maps to human chromosome 13q34. Chromosome 13 contains around 114 million base pairs and 400 genes. Key tumor suppressor genes on chromosome 13 include the breast cancer susceptibility gene, BRCA2, and the RB1 (retinoblastoma) gene. RB1 encodes a crucial tumor suppressor protein which, when defective, leads to malignant growth in the retina and has been implicated in a variety of other cancers. The gene SLITRK1, which is associated with Tourette syndrome, is on chromosome 13. As with most chromosomes, polysomy of part or all of chromosome 13 is deleterious to development and decreases the odds of survival. Trisomy 13, also known as Patau syndrome, is quite deadly and the few who survive past one year suffer from permanent neurologic defects, difficulty eating and vulnerability to serious respiratory infections.

Additional Information

Gene ID	55739
Other Names	ATP-dependent (S)-NAD(P)H-hydrate dehydratase {ECO:0000255|HAMAP-Rule:MF_03157}, 4.2.1.93 {ECO:0000255|HAMAP-Rule:MF_03157, ECO:0000269|PubMed:30576410}, ATP-dependent NAD(P)HX dehydratase {ECO:0000255|HAMAP-Rule:MF_03157}, Carbohydrate kinase

	domain-containing protein {ECO:0000255|HAMAP-Rule:MF_03157}, NAD(P)HX dehydratase {ECO:0000312|HGNC:HGNC:25576}, NAXD (HGNC:25576)
Dilution	WB=1:500-2000
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.

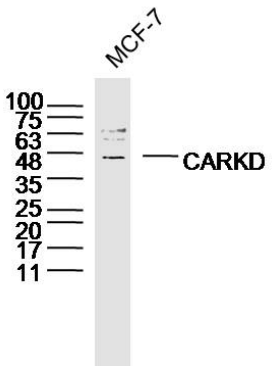
Protein Information

Name	NAXD (HGNC:25576)
Function	Catalyzes the dehydration of the S-form of NAD(P)HX at the expense of ATP, which is converted to ADP. Together with NAD(P)HX epimerase, which catalyzes the epimerization of the S- and R-forms, the enzyme allows the repair of both epimers of NAD(P)HX, a damaged form of NAD(P)H that is a result of enzymatic or heat-dependent hydration.
Cellular Location	Mitochondrion {ECO:0000255|HAMAP-Rule:MF_03157}.

Background

CARKD is a 347 amino acid protein that belongs to the YjeF family and exists as three alternatively spliced isoforms. Containing one YjeF C-terminal domain, CARKD is encoded by a gene that maps to human chromosome 13q34. Chromosome 13 contains around 114 million base pairs and 400 genes. Key tumor suppressor genes on chromosome 13 include the breast cancer susceptibility gene, BRCA2, and the RB1 (retinoblastoma) gene. RB1 encodes a crucial tumor suppressor protein which, when defective, leads to malignant growth in the retina and has been implicated in a variety of other cancers. The gene SLITRK1, which is associated with Tourette syndrome, is on chromosome 13. As with most chromosomes, polysomy of part or all of chromosome 13 is deleterious to development and decreases the odds of survival. Trisomy 13, also known as Patau syndrome, is quite deadly and the few who survive past one year suffer from permanent neurologic defects, difficulty eating and vulnerability to serious respiratory infections.

Images



Sample: MCF-7 Cell(Human)Lysate at 30 ug
Primary: Anti-CARKD (AP59245)at 1/300 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 37kD
Observed band size: 45kD