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CRYZ Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP21584b

Product Information

Application	WB, E
Primary Accession	Q08257
Reactivity	Human, Rat, Mouse
Predicted	Bovine, Canine, Chicken
Host	Rabbit
Clonality	polyclonal
Isotype	Rabbit IgG
Clone Names	RB50134
Calculated MW	35207

Additional Information

Gene ID	1429
Other Names	Quinone oxidoreductase, NADPH:quinone reductase, Zeta-crystallin, CRYZ
Target/Specificity	This CRYZ antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 248-282 amino acids from the C-terminal region of human CRYZ.
Dilution	WB~~1:2000 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	CRYZ Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CRYZ (HGNC:2419)
Function	Multifunctional crystallin endowed with unrelated mRNA stabilization and enzymatic oxidoreductase activities (PubMed:17497241, PubMed:20103721). Binds (AU)-rich elements (ARE) in the 3'-UTR of target mRNA to enhance their stability (PubMed:17497241, PubMed:20103721). Upon metabolic acidosis, stabilizes the mRNA encoding SLC12A1 a cotransporter involved in

transepithelial NH4(+) reabsorption in the medullary thick ascending limb in kidney (By similarity). In response to acidosis, also participates to the adaptive increase in renal ammoniagenesis by stabilizing the mRNAs of enzymes involved in glutamine catabolism (By similarity). By the same mechanism, it also regulates the expression of the antiapoptotic protein BCL2 (PubMed:20103721). Beside its mRNA stabilization activity, also catalyzes the reduction of orthoquinones such as 1,2-naphthoquinone or 9,10-phenanthrenequinone in the presence of NADPH in vitro and could be involved in the detoxification of xenobiotics and protection against oxidative stress (PubMed:17497241).

Cellular Location Cytoplasm, cytosol.

Tissue Location Only very low amounts in the lens.

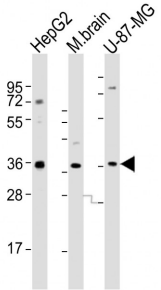
Background

Does not have alcohol dehydrogenase activity. Binds NADP and acts through a one-electron transfer process. Orthoquinones, such as 1,2-naphthoquinone or 9,10-phenanthrenequinone, are the best substrates (in vitro). May act in the detoxification of xenobiotics. Interacts with (AU)-rich elements (ARE) in the 3'-UTR of target mRNA species. Enhances the stability of mRNA coding for BCL2. NADPH binding interferes with mRNA binding.

References

Gonzalez P.,et al.Biochem. Biophys. Res. Commun. 191:902-907(1993).
Gonzalez P.,et al.Genomics 21:317-324(1994).
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Suzuki Y.,et al.Submitted (APR-2005) to the EMBL/GenBank/DDBJ databases.
Bechtel S.,et al.BMC Genomics 8:399-399(2007).

Images



All lanes : Anti-CRYZ Antibody (C-term) at 1:2000 dilution Lane 1: HepG2 whole cell lysates Lane 2: mouse brain lysates Lane 3: U-87-MG whole cell lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 35 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

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