Datasheet for ABIN1881229

anti-CRYAA antibody (AA 77-106)

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Overview

Quantity:	400 µL
Target:	CRYAA
Binding Specificity:	AA 77-106
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This CRYAA antibody is un-conjugated
Application:	Western Blotting (WB)

Product Details

Immunogen:	This CRYAA antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 77-106 amino acids from the Central region of human CRYAA.
Clone:	RB28544
Isotype:	Ig Fraction
Predicted Reactivity:	B, Hs, M, Pig, Rb, Rat, Sh
Purification:	This antibody is purified through a protein A column, followed by peptide affinity purification.

Target Details

Target:	CRYAA
Alternative Name:	CRYAA (CRYAA Products)

Target Details

Background:	Crystallins are separated into two classes: taxon-specific, or enzyme, and ubiquitous. The latter class constitutes the major proteins of vertebrate eye lens and maintains the transparency and refractive index of the lens. Since lens central fiber cells lose their nuclei during development, these crystallins are made and then retained throughout life, making them extremely stable proteins. Mammalian lens crystallins are divided into alpha, beta, and gamma families, beta and gamma crystallins are also considered as a superfamily. Alpha and beta families are further divided into acidic and basic groups. Seven protein regions exist in crystallins: four homologous motifs, a connecting peptide, and N- and C-terminal extensions. Alpha crystallins are composed of two gene products: alpha-A and alpha-B, for acidic and basic, respectively. Alpha crystallins can be induced by heat shock and are members of the small heat shock protein (sHSP also known as the HSP20) family. They act as molecular chaperones although they do not renature proteins and release them in the fashion of a true chaperone, instead they hold them in large soluble aggregates. Post-translational modifications decrease the ability to chaperone. These heterogeneous aggregates consist of 30-40 subunits, the alpha-A and alpha-B subunits have a 3:1 ratio, respectively. Two additional functions of alpha crystallins are an autokinase activity and participation in the intracellular architecture. Alpha-A and alpha-B gene products are differentially expressed, alpha-A is preferentially restricted to the lens and alpha-B is expressed widely in many tissues and organs. Defects in this gene cause autosomal dominant congenital cataract (ADCC). [provided by RefSeq].
Molecular Weight:	19909
NCBI Accession:	NP_000385
UniProt:	P02489
Pathways:	M Phase

Application Details

Application Notes:	WB: 1:1000
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	Purified polyclonal antibody supplied in PBS with 0.09 % (W/V) sodium azide.
Preservative:	Sodium azide

Handling

Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C,-20 °C
Expiry Date:	6 months

Publications

Product cited in:

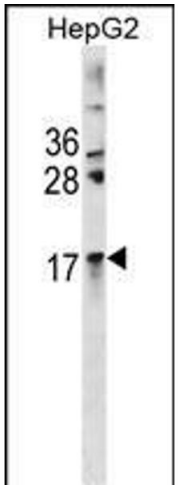
Deng, Chen, Xie, Zhao, Gong, Liu, Zhang, Sun, Liu, Ma, Batra, Li: "The small heat shock protein alphaA-crystallin is expressed in pancreas and acts as a negative regulator of carcinogenesis." in: **Biochimica et biophysica acta**, Vol. 1802, Issue 7-8, pp. 621-31, (2010) (PubMed).

Li, Yang, Ma, Zhang, Zhang, Wang, Zhu: "Autosomal dominant congenital nuclear cataracts caused by a CRYAA gene mutation." in: **Current eye research**, Vol. 35, Issue 6, pp. 492-8, (2010) (PubMed).

Pang, Su, Feng, Tang, Gu, Zhang, Ma, Yan: "Effects of congenital cataract mutation R116H on alphaA-crystallin structure, function and stability." in: **Biochimica et biophysica acta**, Vol. 1804, Issue 4, pp. 948-56, (2010) (PubMed).

Bhagyalaxmi, Padma, Reddy, Reddy: "Association of G>A transition in exon-1 of alpha crystallin gene in age-related cataracts." in: **Oman journal of ophthalmology**, Vol. 3, Issue 1, pp. 7-12, (2010) (PubMed).

Images



Western Blotting

Image 1. CRY Antibody (Center) (ABIN1881229 and ABIN2850423) western blot analysis in HepG2 cell line lysates (35 µg/lane).This demonstrates the CRY antibody detected the CRY protein (arrow).