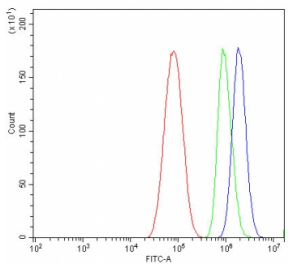
CRYAA Antibody / Alpha A Crystallin [clone 8H6] (RQ7930)

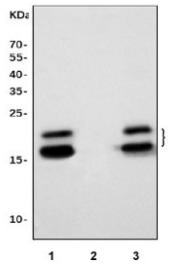
Catalog No.	Formulation	Size
RQ7930	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2b
Clone Name	8H6
Purity	Antigen affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	P02489
Applications	Western blot: 0.5-1ug/ml Flow cytometry: 1-3ug/million cells
Limitations	This CRYAA antibody is available for research use only.



Flow cytometry testing of human HepG2 cells with CRYAA antibody at 1ug/million cells (blocked with goat sera); Red=cells alone, Green=isotype control, Blue= CRYAA antibody.



CRYAA Antibody Rat Eye, Rat C6 and Mouse Eye WB. Western blot analysis of CRYAA expression was performed using anti-CRYAA antibody. Lane 1: rat eye tissue lysate. Lane 2: rat C6 cell lysate. Lane 3: mouse eye tissue lysate. CRYAA (Alpha A Crystallin) is a small heat shock protein and ATP-independent molecular chaperone that preserves protein homeostasis by preventing protein aggregation and protecting cells from oxidative stress. Strong immunoreactive bands are detected at approximately 20â€“23 kDa in rat and mouse eye lysates, consistent with the expected molecular weight of CRYAA, while little to no expression is observed in rat C6 cells. These results support the utility of CRYAA Antibody for studies of lens biology, molecular chaperone function, protein homeostasis, and ocular disease.

Description

CRYAA Antibody detects Alpha-crystallin A chain, a protein that in humans is encoded by the CRYAA gene. Mammalian lens crystallins are divided into alpha, beta, and gamma families. 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 (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. Two additional functions of alpha crystallins are an autokinase activity and participation in the intracellular architecture. The encoded protein has been identified as a moonlighting protein based on its ability to perform mechanistically distinct functions. 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).

Explore our Alpha A Crystallin Antibody / Molecular Chaperone Antibody page to learn more about this important regulator of protein homeostasis, molecular chaperone activity, and cellular stress responses.

Application Notes

Optimal dilution of the CRYAA antibody should be determined by the researcher.

Immunogen

E. coli-derived recombinant human protein (amino acids M1-S173) was used as the immunogen for the CRYAA antibody.

Storage

After reconstitution, the CRYAA antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

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