Datasheet: VMA00548KT

Description:	ALPHA B CRYSTALLIN ANTIBODY WITH CONTROL LYSATE
Specificity:	ALPHA B CRYSTALLIN
Format:	Purified
Product Type:	PrecisionAb™ Monoclonal
Clone:	CPTC16
Isotype:	IgG2a
Quantity:	2 Westerns

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Western Blotting	▪			1/1000

PrecisionAb antibodies have been extensively validated for the western blot application. The antibody has been validated at the suggested dilution. Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Further optimization may be required dependant on sample type.

Target Species	Human
Species Cross Reactivity	Reacts with: Mouse, Rat **N.B.** Antibody reactivity and working conditions may vary between species.
Product Form	Purified IgG - liquid
Preparation	20µl Mouse monoclonal antibody purified by affinity chromatography on Protein G from tissue culture supernatant
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% Sodium Azide (NaN_3)
Immunogen	Recombinant protein of human alpha B crystallin
External Database Links	**UniProt:** P02511 Related reagents **Entrez Gene:** 1410 CRYAB Related reagents

Synonyms	CRYA2
Specificity	**Mouse anti Human alpha B crystallin antibody** recognizes the alpha-crystallin B chain, also known as epididymis secretory protein Li 101, heat shock protein beta-5, CRYAB or heat-shock 20 kDa like-protein. 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. Elevated expression of alpha-B crystallin occurs in many neurological diseases; a missense mutation cosegregated in a family with a desmin-related myopathy (provided by RefSeq, Jul 2008). Mouse anti Human alpha B crystallin antibody detects a band of 22 kDa. The antibody has been extensively validated for western blotting using whole cell lysates.
Western Blotting	Anti alpha B crystallin detects a band of approximately 22 kDa in HeLa cell lysates
Instructions For Use	Please refer to the PrecisionAb western blotting protocol. For additional information on secondary antibody dilution and exposure time see product web page.
Lysate Composition	400µg HeLa lysate lyophilized in RIPA buffer
Lysate Reconstitution	- If using DDT reconstitute the lyophilized lysate with 190µl DI H_2O, add 200µl 2x Laemmli Sample Buffer and 10µl 2M DTT. - If using BME reconstitute the lyophilized lysate with 180µl DI H_2O, add 200µl 2x Laemmli Sample Buffer and 20µl BME. Heat at 95°C for 5 minutes. For 10 well mini gels load 25µl. For other gel and comb formats please refer to the PrecisionAb western blotting protocol.
Storage	Antibody: Store undiluted at -20ºC, avoiding repeated freeze thaw cycles. Lysate: Store lyophilized lysate at -20°C. After reconstitution aliquot and store at -20°C for up to 3 months or at -80°C for longer term storage.
Shelf Life	As supplied, 12 months from date of despatch.
Acknowledgements	PrecisionAb™ is a trademark of Bio-Rad Laboratories.

Health And Safety Information	Material Safety Datasheet documentation #10040 #10561 available at: Antibody (10040): https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf Lysate Material (10561): https://www.bio-rad-antibodies.com/uploads/MSDS/10561.pdf
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgG (H/L) (STAR207...) HRP

Recommended Negative Controls

MOUSE IgG2a NEGATIVE CONTROL (MCA929)

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