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Produktinformation

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- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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SANTA CRUZ BIOTECHNOLOGY, INC.

αB-crystallin (h3): 293T Lysate: sc-159351

BACKGROUND

Crystallins are the major proteins of the vertebrate eye lens, where they maintain the transparency and refractive index of the lens. Crystallins are divided into α, β and γ families, and the β- and γ-crystallins also compose a superfamily. Crystallins usually contain seven distinct protein regions, including four homologous motifs, a connecting peptide and N- and C-terminal extensions. α-crystallins consist of three gene products, αA-, αB- and αC-crystallin, which are members of the small heat shock protein family (HSP 20). α-crystallins act as molecular chaperones by holding denatured proteins in large soluble aggregates. However, unlike other molecular chaperones, α-crystallins do not renature these proteins. Expression of αA-crystallin is restricted to the lens and defects of this gene cause the development of autosomal dominant congenital cataracts (ADCC). The human αB-crystallin gene product is expressed in many tissues, including lens, heart and skeletal muscle. Elevated expression of αB-crystallin is associated with many neurological diseases, and a missense mutation in this gene has co-segregated in a family with a Desmin-related myopathy.

REFERENCES

1. Neufer, P.D. and Benjamin, I.J. 1996. Differential expression of B-crystallin and HSP 27 in skeletal muscle during continuous contractile activity. Relationship to myogenic regulatory factors. J. Biol. Chem. 271: 24089-24095.
2. Litt, M., Kramer, P., LaMorticella, D.M., Murphey, W., Lovrien, E.W. and Weleber, R.G. 1998. Autosomal dominant congenital cataract associated with a missense mutation in the human α-crystallin gene CRYAA. Hum. Mol. Genet. 7: 471-474.
3. Haley, D.A., Horwitz, J. and Stewart, P.L. 1998. The small heat shock protein, αB-crystallin, has a variable quaternary structure. J. Mol. Biol. 277: 27-35.
4. Bova, M.P., Yaron, O., Huang, Q., Ding, L., Haley, D.A., Stewart, P.L. and Horwitz, J. 1999. Mutation R120G in αB-crystallin, which is linked to a Desmin-related myopathy, results in an irregular structure and defective chaperone-like function. Proc. Natl. Acad. Sci. USA 96: 6137-6142.
5. Wang, K. and Spector, A. 2000. α-crystallin prevents irreversible protein denaturation and acts cooperatively with other heat shock proteins to renature the stabilized partially denatured protein in an ATP-dependent manner. Eur. J. Biochem. 267: 4705-4712.
6. Jaenicke, R. and Slingsby, C. 2001. Lens crystallins and their microbial homologs: structure, stability and function. Crit. Rev. Biochem. Mol. Biol. 36: 435-499.
7. Narberhaus, F. 2002. α-crystallin-type heat shock proteins: socializing minichaperones in the context of a multichaperone network. Microbiol. Mol. Biol. Rev. 66: 64-93.
8. LocusLink Report (LocusID: 1409). http://www.ncbi.nlm.nih.gov/LocusLink/

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

CHROMOSOMAL LOCATION

Genetic locus: CRYAB (human) mapping to 11q23.1.

PRODUCT

αB-crystallin (h3): 293T Lysate represents a lysate of human αB-crystallin transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

αB-crystallin (h3): 293T Lysate is suitable as a Western Blotting positive control for human reactive αB-crystallin antibodies. Recommended use: 10-20 µl per lane.

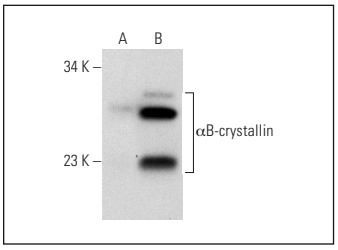
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

αB-crystallin (C-8): sc-137144 is recommended as a positive control antibody for Western Blot analysis of enhanced human αB-crystallin expression in αB-crystallin transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

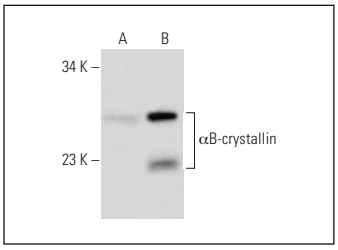
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



αB-crystallin (C-8): sc-137144. Western blot analysis of αB-crystallin expression in non-transfected: sc-117752 (**A**) and human αB-crystallin transfected: sc-159351 (**B**) 293T whole cell lysates.



αB-crystallin (F-10): sc-137129. Western blot analysis of αB-crystallin expression in non-transfected: sc-117752 (**A**) and human αB-crystallin transfected: sc-159351 (**B**) 293T whole cell lysates.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.