



β B1-crystallin (h2): 293T Lysate: sc-128077

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 comprise a superfamily. Crystallins usually contain seven distinctive protein regions, including four homologous motifs, a connecting peptide, and N- and C-terminal extensions. β -crystallins constitute the major lens structural proteins, and they associate into dimers, tetramers and higher order aggregates. The β -crystallin subfamily is composed of several gene products, including β A1-, β A2-, β A3-, β A4-, β B1-, β B2- and β B3-crystallin. The β A1- and β A3-crystallin proteins are encoded by a single mRNA. They differ by only 17 amino acids, and β A1-crystallin is generated by use of an alternate translation initiation site.

REFERENCES

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2. Hejtmancik, J.F., Wingfield, P.T., Chambers, C., Russell, P., Chen, H.C., Sergeev, Y.V. and Hope, J.N. 1997. Association properties of β B2- and β A3-crystallin: ability to form dimers. *Protein Eng.* 10: 1347-1352.
3. Werten, P.J., Stege, G.J. and de Jong, W.W. 1999. The short 5' untranslated region of the β A3/A1-crystallin mRNA is responsible for leaky ribosomal scanning. *Mol. Biol. Rep.* 26: 201-205.
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5. Horwitz, J. 2003. α -crystallin. *Exp. Eye Res.* 76: 145-153.
6. Hejtmancik, J.F., Wingfield, P.T. and Sergeev, Y.V. 2004. β -crystallin association. *Exp. Eye Res.* 79: 377-383.
7. Bhat, S.P. 2004. Transparency and non-refractive functions of crystallins—a proposal. *Exp. Eye Res.* 79: 809-816.

CHROMOSOMAL LOCATION

Genetic locus: CRYBB1 (human) mapping to 22q12.1.

PRODUCT

β B1-crystallin (h2): 293T Lysate represents a lysate of human β B1-crystallin transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

β B1-crystallin (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive β B1-crystallin antibodies. Recommended use: 10-20 μ l per lane.

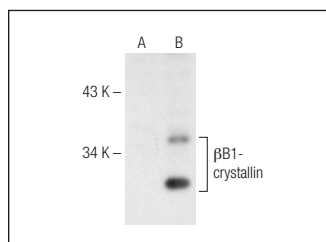
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

β B1-crystallin (A-8): sc-374496 is recommended as a positive control antibody for Western Blot analysis of enhanced human β B1-crystallin expression in β B1-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-IgG κ BP-HRP: sc-516102 or m-IgG κ 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



β B1-crystallin (A-8): sc-374496. Western blot analysis of β B1-crystallin expression in non-transfected: sc-117752 (A) and human β B1-crystallin transfected: sc-128077 (B) 293T whole cell lysates.

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.

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.