

β 2-crystallin (h): 293T Lysate: sc-127861

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

1. Hope, J.N., et al. 1994. β A3/A1-crystallin association: role of the N-terminal arm. *Protein Eng.* 7: 445-451.
2. Hejtmancik, J.F., et al. 1997. Association properties of β B2- and β A3-crystallin: ability to form dimers. *Protein Eng.* 10: 1347-1352.
3. Slingsby, C., et al. 1999. Structure of the crystallins. *Eye* 13: 395-402.
4. Werten, P.J., et al. 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.
5. Horwitz, J. 2003. α -crystallin. *Exp. Eye Res.* 76: 145-153.
6. Hejtmancik, J.F., et al. 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.
8. Paulin, D., et al. 2004. Desminopathies in muscle disease. *J. Pathol.* 204: 418-427.
9. LocusLink Report (LocusID: 1411). <http://www.ncbi.nlm.nih.gov/LocusLink>

CHROMOSOMAL LOCATION

Genetic locus: CRYBB2 (human) mapping to 22q11.23.

PRODUCT

β 2-crystallin (h): 293T Lysate represents a lysate of human β 2-crystallin transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

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.

PROTOCOLS

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

APPLICATIONS

β 2-crystallin (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive β 2-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.

RESEARCH USE

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