



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!  
See the following pages for more information!



### Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

[mail@szabo-scandic.com](mailto:mail@szabo-scandic.com)

[www.szabo-scandic.com](http://www.szabo-scandic.com)

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

# βB1-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  $\alpha$ ,  $\beta$ , and  $\gamma$  families, and the  $\beta$  and  $\gamma$ -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.  $\beta$ -crystallins constitute the major lens structural proteins, and they associate into dimers, tetramers and higher order aggregates. The  $\beta$ -crystallin subfamily is composed of several gene products, including  $\beta$ A1-,  $\beta$ A2-,  $\beta$ A3-,  $\beta$ A4-,  $\beta$ B1-,  $\beta$ B2- and  $\beta$ B3-crystallin. The  $\beta$ A1- and  $\beta$ A3-crystallin proteins are encoded by a single mRNA. They differ by only 17 amino acids, and  $\beta$ A1-crystallin is generated by use of an alternate translation initiation site.

## REFERENCES

1. Hope, J.N., Chen, H.C. and Hejtmancik, J.F. 1994.  $\beta$ A3/A1-crystallin association: role of the N-terminal arm. *Protein Eng.* 7: 445-451.
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  $\beta$ B2- and  $\beta$ 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  $\beta$ A3/A1-crystallin mRNA is responsible for leaky ribosomal scanning. *Mol. Biol. Rep.* 26: 201-205.
4. Slingsby, C. and Clout, N.J. 1999. Structure of the crystallins. *Eye* 13: 395-402.
5. Horwitz, J. 2003.  $\alpha$ -crystallin. *Exp. Eye Res.* 76: 145-153.
6. Hejtmancik, J.F., Wingfield, P.T. and Sergeev, Y.V. 2004.  $\beta$ -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

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

## APPLICATIONS

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

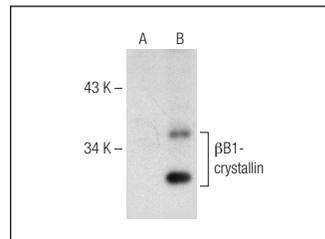
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

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



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

## STORAGE

Store at  $-20^{\circ}$  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](http://www.scbt.com) for detailed protocols and support products.