

CRYZL1 (G-20)CH: sc-83235

BACKGROUND

Crystallins are divided into two classes: taxon-specific, or enzyme, and ubiquitous. The ubiquitous crystallins constitute the major proteins of the vertebrate eye lens, where they maintain the transparency and refractive index of the lens. The taxon-specific crystallins, also designated phylogenetically-restricted crystallins, include λ -, μ -, and ζ -crystallin, which all share homology to various enzymes. ζ -crystallin/quinone reductase is present at low levels in human lens tissue. It has NADPH-dependent quinone reductase activity distinct from other known quinone reductases, and may play a role as a pH response element-binding protein. CRYZL1 (ζ -crystallin-like 1 protein) shares a high degree of homology with ζ -crystallin. CRYZL1 is expressed at various levels in heart, brain, skeletal muscle, kidney, pancreas, liver and lung.

REFERENCES

- Mulders, J.W., et al. 1988. λ -crystallin, a major rabbit lens protein, is related to hydroxyacyl-coenzyme A dehydrogenases. *J. Biol. Chem.* 263: 15462-15466.
- Kim, M.Y., et al. 1999. Identification of a ζ -crystallin (quinone reductase)-like 1 gene (CRYZL1) mapped to human chromosome 21q22.1. *Genomics* 57: 156-159.
- Slingsby, C., et al. 1999. Structure of the crystallins. *Eye* 13: 395-402.
- Tang, A., et al. 2001. Identification of ζ -crystallin/NADPH:quinone reductase as a renal glutaminase mRNA pH response element-binding protein. *J. Biol. Chem.* 276: 21375-21380.
- Horwitz, J. 2003. α -crystallin. *Exp. Eye Res.* 76: 145-153.
- Bhat, S.P. 2004. Transparency and non-refractive functions of crystallins—a proposal. *Exp. Eye Res.* 79: 809-816.
- Paulin, D., et al. 2004. Desminopathies in muscle disease. *J. Pathol.* 204: 418-427.

CHROMOSOMAL LOCATION

Genetic locus: CRYZL1 (human) mapping to 21q22.11; Cryzl1 (mouse) mapping to 16 C3.3.

SOURCE

CRYZL1 (G-20)CH is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of CRYZL1 of human origin.

PRODUCT

Each vial contains 100 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-83235 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

CRYZL1 (G-20)CH is recommended for detection of CRYZL1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

CRYZL1 (G-20)CH is also recommended for detection of CRYZL1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for CRYZL1 siRNA (h): sc-91421, CRYZL1 siRNA (m): sc-142601, CRYZL1 shRNA Plasmid (h): sc-91421-SH, CRYZL1 shRNA Plasmid (m): sc-142601-SH, CRYZL1 shRNA (h) Lentiviral Particles: sc-91421-V and CRYZL1 shRNA (m) Lentiviral Particles: sc-142601-V.

Molecular Weight of CRYZL1: 39 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

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