

CRYZL1 (C-20)CH: sc-83233

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

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- 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; Cryz1l (mouse) mapping to 16 C3.3.

SOURCE

CRYZL1 (C-20)CH is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-terminus 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-83233 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

CRYZL1 (C-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), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (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 (C-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.

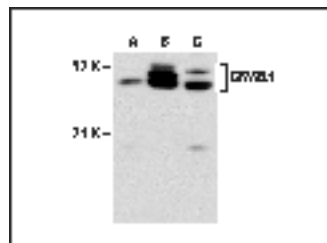
Molecular Weight of CRYZL1: 39 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or CRYZL1 (h): 293T Lysate: sc-171625.

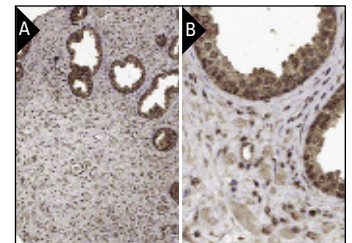
RECOMMENDED SECONDARY REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



CRYZL1 (C-20): sc-83233. Western blot analysis of CRYZL1 expression in mouse brain (A), rat brain (B) and HeLa (C) whole cell lysates.



CRYZL1 (C-20): sc-83233. Immunoperoxidase staining of formalin fixed, paraffin-embedded human prostate showing nuclear and cytoplasmic staining of glandular cells at low (A) and high (B) magnification. Kindly provided by The Swedish Human Protein Atlas (HPA) program.

RESEARCH USE

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