

myocilin (H-130): sc-20976

BACKGROUND

Myocilin is an extracellular protein expressed in the eye, including the retina, trabecular meshwork and ciliary body. Myocilin can form homomultimers *in vivo* and can also associate with components of the ECM via interactions with the Hep II domain of Fibronectin. In addition, myocilin interacts with myosin regulatory light chain, a component of the myosin motor protein complex. This interaction implies a role for myocilin in the actomyosin system, linking myocilin to the functional status of the trabecular meshwork™, which is responsible for controlling the intraocular pressure (IOP). Alterations in functions of the TM may lead to IOP elevation and development of glaucoma, a major cause of blindness. Myocilin is encoded by MYOC (also designated TIGR), a gene that maps to the GLC1A locus on chromosome 1q24.3 and is susceptible to mutations. Mutations in the MYOC gene are specifically linked with primary open angle glaucoma (POAG), a blinding disease characterized by progressive loss of retinal ganglion cells.

CHROMOSOMAL LOCATION

Genetic locus: MYOC (human) mapping to 1q24.3; Myoc (mouse) mapping to 1 H2.1.

SOURCE

myocilin (H-130) is a rabbit polyclonal antibody raised against amino acids 240-370 mapping within an internal region of myocilin of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

myocilin (H-130) is recommended for detection of myocilin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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).

myocilin (H-130) is also recommended for detection of myocilin in additional species, including equine, canine and bovine.

Suitable for use as control antibody for myocilin siRNA (h): sc-40753, myocilin siRNA (m): sc-40754, myocilin shRNA Plasmid (h): sc-40753-SH, myocilin shRNA Plasmid (m): sc-40754-SH, myocilin shRNA (h) Lentiviral Particles: sc-40753-V and myocilin shRNA (m) Lentiviral Particles: sc-40754-V.

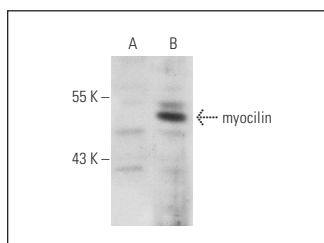
Molecular Weight of myocilin: 57 kDa.

Positive Controls: myocilin (h): 293T Lysate: sc-114465.

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.

DATA



myocilin (H-130): sc-20976. Western blot analysis of myocilin expression in non-transfected: sc-117752 (A) and human myocilin transfected: sc-114465 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

- Samuelson, D.A., et al. 2005. Myocilin localization in the canine eye by light, confocal and electron microscopy. *Microsc. Microanal.* 11: 663-667.
- Gruber, H.E., et al. 2006. Cellular immunohistochemical localization of the matricellular protein myocilin in the intervertebral disc. *Biotech. Histochem.* 81: 119-124.
- Mackay, E.O., et al. 2008. Aqueous humor myocilin protein levels in normal, genetic carriers, and glaucoma beagles. *Vet. Ophthalmol.* 11: 177-185.
- Du, Y., et al. 2012. Multipotent stem cells from trabecular meshwork become phagocytic TM cells. *Invest. Ophthalmol. Vis. Sci.* 53: 1566-1575.
- Hill, S.E., et al. 2015. Molecular details of olfactomedin domains provide pathway to a structure-function studies. *PLoS ONE* 10: e0130888.

RESEARCH USE

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


 MONOS
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Try **myocilin (F-12): sc-137233** or **myocilin (C-1): sc-515500**, our highly recommended monoclonal alternatives to myocilin (H-130).