

**APH586Mu62 100µg
Active Myocilin (MYOC)**

**Organism Species: *Mus musculus (Mouse)*
Instruction manual**

FOR RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

13th Edition (Revised in Aug, 2023)

[PROPERTIES]

Source: Eukaryotic expression.

Host: 293F cell

Residues: Ile213~Met490

Tags: N-terminal His Tag and C-terminal Fc Region of Human IgG1

Purity: >80%

Endotoxin Level: <1.0EU per 1µg (determined by the LAL method).

Buffer Formulation: PBS, pH7.4, containing 5% Trehalose .

Original Concentration: 200µg/mL

Applications: Cell culture; Activity Assays.

(May be suitable for use in other assays to be determined by the end user.)

Predicted isoelectric point: 6.1

Predicted Molecular Mass: 62.3kDa

Accurate Molecular Mass: 65kDa as determined by SDS-PAGE reducing conditions.

[USAGE]

Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

[STORAGE AND STABILITY]

Storage: Avoid repeated freeze/thaw cycles.

Store at 2-8°C for one month.

Aliquot and store at -80°C for 12 months.

Stability Test: The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the

protein at 37°C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.

[SEQUENCE]

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ILKENPSSGRP  RSKEGDKGCG  ALVWVGEPVT  LRTAETIAGK  YGWWMRDPKP  THPYTQESTW  
RIDTVGTEIR  QVFEYSQISQ  FEQGYPSKVH  VLPRALESTG  AVVYAGSLYF  QGAESRTVVR  
YELDTETVKA  EKEIPGAGYH  GHFPYAWGGY  TDIDLAWDES  GLWVIYSTEE  AKGAIVLSKL  
NPANLELERT  WETNIRKQSV  ANAFVICGIL  YTVSSYSSAH  ATVNFAYDTK  TGTSKTLTIP  
FTNRYKYSSM  IDYNPLERKL  FAWDNFNMVT  YDIKLEEM
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[ACTIVITY]

Myocilin (MYOC) is a secreted glycoprotein with a complex and multifaceted role in various biological processes, most notably associated with ocular health and the pathogenesis of glaucoma. Encoded by the MYOC gene located on chromosome 1q24.3-q25.2, this protein is primarily expressed in the trabecular meshwork (TM) of the eye, a tissue critical for regulating aqueous humor outflow and maintaining intraocular pressure (IOP). MYOC has also been detected in other tissues such as the heart, kidney, and skeletal muscle, suggesting potential extracocular functions that are still being elucidated, including roles in cell proliferation, migration, and response to mechanical stress. Research into MYOC continues to shed light on glaucoma mechanisms and may inform the development of targeted therapies for this debilitating condition. As MYOC has the function of cell adhesion, we measure the activity of recombinant mouse MYOC by the ability of the immobilized protein to support the adhesion of AGS cells. When cells are added to different concentrations of recombinant mouse MYOC coated plates, cells will adhere after 2 hour incubation at 37 °C. The adhesion of AGS after 2 hour incubation at 37 °C observed by inverted microscope was shown in Figure 1. Cell adherent was in a dose dependent manner, the result was shown in Figure 2, the EC50 was 0.45 μg/ml.



Figure 1. The adhere effect of recombinant mouse MYOC on AGS cells

(A) AGS cells were seeded into the well coated with MYOC at 0.6 μ g/ml and incubated for 2 h at 37 °C;

(B) AGS cells were seeded into the well without MYOC and incubated for 2 h at 37 °C;

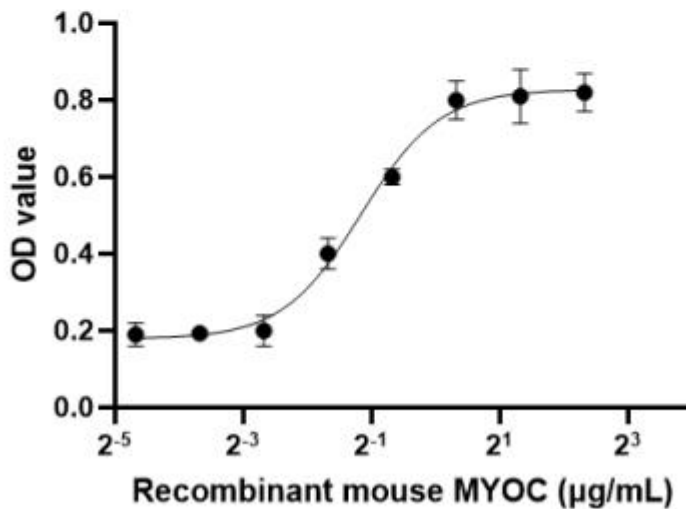


Figure 2. The dose-effect curve of recombinant mouse MYOC on AGS cells

[IDENTIFICATION]

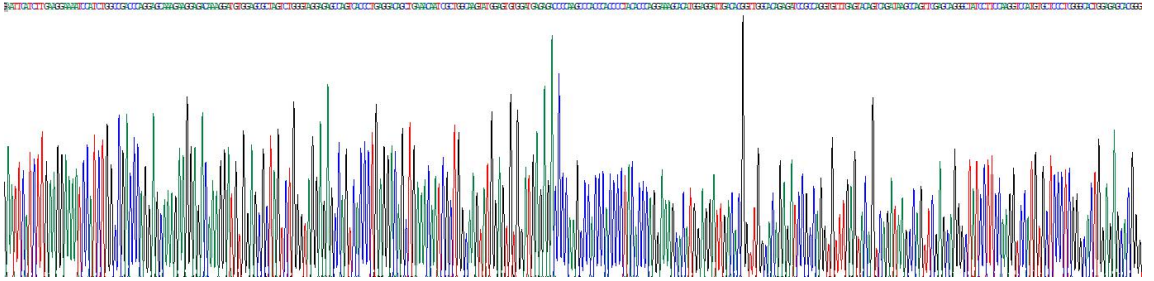


Figure 3. Gene Sequencing (extract)

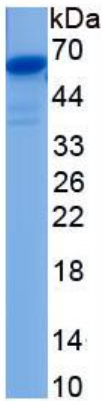


Figure 4. SDS-PAGE

Sample: Active recombinant MYOC, Mouse

[IMPORTANT NOTE]

The kit is designed for research use only, we will not be responsible for any issue if the kit was used in clinical diagnostic or any other procedures.