

Myocilin Protein, Human, Recombinant (His)

General Information

Synonyms:	myocilin, trabecular meshwork inducible glucocorticoid response;GPOA;GLC1A;JOAG;JOAG1;myocilin;TIGR
Protein Construction:	A DNA sequence encoding the full length of human MYOC (Q99972) (Met 1-Met 504) was fused with a polyhistidine tag at the C-terminus. Predicted N terminal: Ile 227
Species:	Human
Expression Host:	HEK293 Cells
Accession:	Q99972
Molecular Weight:	54.7 kDa (predicted); 33 kDa (reducing conditions)

QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 95 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:
Reconstituted with sterile deionized water to 0.25 mg/mL. Reconstitution conditions may vary depending on the lot.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Myocilin, also known as Trabecular meshwork-induced glucocorticoid response protein, MYOC, and GLC1A, is a protein that contains one olfactomedin-like domain. Myocilin / MYOC may participate in the obstruction of fluid outflow in the trabecular meshwork. Myocilin / MYOC is expressed in large amounts in various types of muscle, ciliary body, papillary sphincter, skeletal muscle, heart, and other tissues. Myocilin / MYOC is expressed

predominantly in the retina. In normal eyes, it is found in the inner uveal meshwork region and the anterior portion of the meshwork. In contrast, in many glaucomatous eyes, it is found in more regions of the meshwork and appeared more intensively than in normal eyes, regardless of the type of clinical severity of glaucoma. Defects in Myocilin / MYOC may contribute to primary congenital glaucoma type 3A (GLC3A). Defects in MYOC may also contribute to this phenotype via digenic inheritance. GLC3A is an autosomal recessive form of primary congenital glaucoma (PCG). PCG is characterized by a marked increase of intraocular pressure at birth or early childhood, large ocular globes (buphthalmos), and corneal edema.

Reference

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