



FabGennix Inc.
INTERNATIONAL

New Item
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Myocilin (Trabecular meshwork-induced Glucocorticoid Response/Myocilin antibodies

Anti-Myocilin (TIGR) antibodies (Myo-101AP, Myo-112P and Myo-121AP)

Approximately 4 years ago, the first major (biochemical, molecular biologic, and biologic) insight into primary open-angle glaucoma (POAG) was the presence of mutations in the myocilin (Trabecular meshwork-induced Glucocorticoid Response (Myo/TIGR) gene were related to certain forms of juvenile onset of this disease. Since then, a great deal of work has been done to determine the possible mechanisms by which MYOC/TIGR might cause not only juvenile but also adult-onset primary open-angle glaucoma. Mutation in the myocilin gene is associated with 4% (familial form) of glaucoma cases. Glaucoma is a heterogeneous eye disease and a major cause of blindness worldwide. It has been shown that primary open angle glaucoma (POAG)-associated mutations have been found in the trabecular meshwork inducible glucocorticoid response gene (TIGR), also known as the myocilin gene (MYOC), at the GLC1A locus on chromosome 1q21-q31 (1). Mutation in the TIGR protein coding region is mutated in POAG patients range from 3-4%. Myocilin is found as myocilin-Myocilin complex in the human aqueous humor and these interactions occur between amino acid 117-166 lying with in the leucine zipper motifs. Site directed mutations of the amino acid leucine in the leucine zipper results in disruption of these interactions and mutation (2).

The human clone encoding for Myocilin protein of molecular weight of 55 kDa has been isolated and characterized (4). Myocilin, which resembles Myosin, is expressed preferentially in the ciliary rootlets and the basal body of the connecting cilium of the photoreceptor cells. The deduced amino acid sequence of the human myocilin showed significant homologies with non-muscle myosin of dictyostilium discoideum in the N-terminal region and also with olfactomedin of bullfrog in the C-terminal region. Myocilin has a leucine zipper like motif that interacts with other cytoskeletal proteins.

The TIGR/myocilin protein is a 55 kDa protein expressed in RPEs. The myocilin antibodies were generated against three epitopes two from close to the N-terminus of the protein and one from the C-terminal end. Anti-Myocilin antibodies were generated against KLH conjugated peptides that are unique to human myocilin protein. The polyclonal antibody strongly labels a 55kDa protein in RPE cell extracts. Anti-Myocilin-selective antibodies are also available in affinity-purified form for confocal, Western blotting and immunocytochemical analyses. *FabGennix Inc.* will also conjugate antibodies with fluorescent probes upon request at extra charge. *FabGennix Inc.* also provides antibodies against proteins that are involved in retinal degenerative diseases such as various Anti-PDE antibodies, Anti-EFEMP1, Anti-Orphan receptor G-75; Anti-Bestrophin, Anti-ELVOL4 and a Usher syndrome specific Anti-USH2a antibody. *FabGennix Inc* employs cyclic peptide methodology for generating antibodies, which results in higher titer and specificity (6).

FabGennix, Inc., will also provide Western blot positive controls for most of these antibodies in ready-to-use buffer for easy identification of respective proteins. Limited quantities of antigens are also available. Please enquire for their availability before ordering.

Catalog #	Host Species	Nature	Cross reactivity	Quantity	Volume	Price
Myo-100P	Rabbit	N-terminal antibody	R, M, H, monk	100 µl	100 ul	195
Myo-101AP	Rabbit	N-terminal antibody	R, M, H, monk	100ug	150 ul	235
Myo-110P	Rabbit	Mid-region	R, M, H, monk	100 ul	100 ul	195
Myo-112AP	Rabbit	Mid-region	R, M, H, monk	100 µg	150 ul	235
Myo-120P	Rabbit	C-terminal antibody	R, M, H, monk	100 ul	100 ul	195
Myo-121AP	Rabbit	C-terminal antibody	R, M, H, monk	100 ug	150 ul	235
P-Myo	n/a	Antigenic peptides	n/a	250 ug	inquire	75

R = rat; M = mouse; H = human; C = chicken; monk = monkey ; * not all variants are labeled equally

(Note: Antigenic blocking peptides for all three antibodies are also available in limited quantities. Please inquire about their availability).

Immunogen: Synthetic peptide for Myo-100P antibody (CLV WDV GAR TAQ LRK AND QSG R-amide)
Synthetic peptide for Myo-110P antibody (KKR LRQ ENE NLA RRL ESC-amide)
Synthetic peptide for Myo-120P antibody (CQE GLQ REL GTL RRE RDQ LET Q

Concentration: Myo-100P/110P and 120P Neat serum (100 ul)
Myo-101AP/Myo-112AP IgG concentration 0.65-1.25 mg/ml in 50% antibody
& Myo-121AP stabilization buffer containing preservatives.

Applications: Antibody Myo-112AP/Myo-121AP are ideal for IMM, WB and IHC applications. The dilutions for this antibody is for reference only, investigators are expected to determine the optimal conditions for specific assay in his/her laboratory. Myo-112AP and 121AP works well in Western analyses. WB > 1:500; Immunoprecipitation & i.p pull-down assays:> 1:200

Reactivity: This antibody detects a single 55 kDa Myocilin protein in human RPE cell extracts. The antibody does not cross reacts with any other protein in RPE cells.

* For users who may require large amounts of Myocilin neat serum or affinity purified antibodies, please enquire about bulk material discounts.

This Product is for Research Use Only and is NOT intended for use in humans or clinical diagnosis.

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