



FabGennix Inc.
INTERNATIONAL

New Item New Item

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Receptor Tyrosine kinase gene (MERTK) selective antibodies

MERTK antibodies (MKT-100P, MKT-110P and MKT-101AP)

In vertebrate, the photoreceptor cells are the basic sensory apparatus of the retina primarily converting photon energy absorbed from light into neuronal signals. The photoreceptor proximal outer segments are synthesized daily by cell bodies, and outer segment tips are removed with a circadian rhythm. The shed outer segments are endocytosed by adjacent retinal pigment epithelial (RPE) cells, and are recycled to photoreceptors (1). Mutation of a receptor tyrosine kinase gene, *Mertk*, in the Royal College of Surgeons (RCS) rat results in defective phagocytosis of photoreceptor outer segments by the retinal pigment epithelium (RPE) and retinal degeneration (2) resulting in to retinitis pigmentosa.

The receptor tyrosine kinase MERTK protein is a approximately 170-175 kDa (994 amino acids) protein expressed in long evans rat testis and RPEs. The MERTK protein has a tyrosine kinase domain closer to the C-terminal region and putative phosphorylation sites. The Anti-MERTK-selective antibody was generated against a conserved sequence near the N-terminal that is unique to MERTK protein only. The polyclonal antibody strongly labels a 174kDa protein in RPE cell extracts. Anti-MERTK-selective antibody is 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-Myocilin (TIGR), 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	Price
MKT-100P	Rabbit	Polyclonal C-terminal antisera	R, M, H, monk	100 µl	205
MKT-110P	Rabbit	Polyclonal antisera	R, M, H, monk	100 µl	205
MKT-120P	Rabbit	Poly clonal antisera	R, M, H, monk	100 ul	205
MKT-101AP	Rabbit	Affinity purified IgG	R, M, H, monk	100 µg	235
MKT-112AP	Rabbit	Affinity purified IgG	R, M, H, monk	100 µg	235
MKT-121AP	Rabbit	Affinity purified IgG	human, M, rat	100ul	235

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

Immunogen:

Synthetic peptide for MKT-101AP antibody (EEE IKP DQP FSG PLP GS {C}) N-terminus
Synthetic peptide for MKT-112AP antibody (VQE TKF GGA FSE EDC-amide) Mid region
Synthetic peptide for MKT-121AP antibody (SLAGLDMNIDPDSIIASC-amide) C-terminus

Concentration: MKT-101AP, MKT-112AP & MKT-121AP IgG concentration 0.65-1.25 mg/ml.

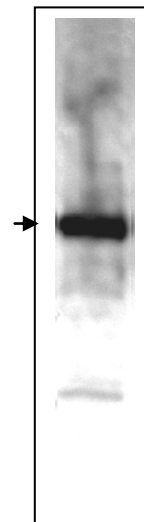
Applications: Antibody MKT-101/MKT-121AP are ideal for IMM, WB and IHC applications. MKT-112AP is meant for WB purposes only. The dilutions for these antibodies are for reference only, investigators are expected to determine the optimal conditions for specific assay. WB; 1:500; IMM & i.p pull-down assays:> 1:200 (1 ul/250 ug protein extracts)

Reactivity: This antibody detects a single 170-175kDa MERTK protein in human RPE cell extracts. The antibody also reacts to a 90 kDa protein in rat testis extracts.

Protocols: Standard protocol for various applications (WB, IMM and IHC) of this antibody is provided with the product specification sheet, however, *FabGennix Int. Inc.*

Form/Storage: The antiserum is supplied in antibody stabilization buffer with 0.02% sodium azide. For long-term storage of antibodies, store at -20°C. *FabGennix Int. Inc.* does not recommend storage of very dilute antibody solutions unless they are prepared in specially formulated multi use antibody dilution buffer (Cat # DiUbuffer). Working solutions of antibodies in DiUbuffer should be filtered through 0.45µ filter after every use for long-term storage.

109 kDa MERTK from human RPE cells



References:

1. D'Cruz PM, Yasumura D, Weir J, Matthes MT, Abderrahim H, LaVail MM, Vollrath D. *Hum. Mol. Gen.* 2000, 4, 645-651.
2. Gal A, Li Y, Thompson DA, Weir J, Orth U, Jacobson SG, Apfelstedt-Sylla E, Vollrath D. *Nat. Genet.* 2000, 3, 270-281.

Announcements: A new Phospho-Specific Mer-TK/Nyk Antibody (Cat # PMKT-140AP) is now available from [FabGennix International Inc.](http://www.fabgennix.com) This antibody is raised against a synthetic peptide corresponding to autophosphorylation site on Nyk/Mer protein (1).

1. Identification of the major autophosphorylation sites of Nyk/Mer and NCAM-related Receptor Ikinase. *J. Biol. Chem.* 271(31); 18355-18362, 1996.

*For users who may require large amounts of MERTK-100P or MERTK-101AP, 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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