

Datasheet for 610-4240**Mouse IgG1 Secondary Antibody Fluorescein Conjugated****Overview**

Description:	Rabbit Anti-Mouse IgG1 (Gamma 1 chain) Antibody Fluorescein Conjugated - 610-4240
Item No.:	610-4240
Size:	1 mg
Applications:	WB, IF
Reactivity:	Mouse
Host Species:	Rabbit

Product Details

Background:	Anti-Mouse IgG1 Fluorescein Antibody generated in rabbit detects reactivity to Mouse IgG1 (Gamma 1 chain). Secreted as part of the adaptive immune response by plasma B cells, immunoglobulin G constitutes 75% of serum immunoglobulins. IgG1 chain constitutes 66% of the IgG subclass and has a high affinity for binding to the Fc receptor of phagocytic cells. Secondary Antibodies are available in a variety of formats and conjugate types. When choosing a secondary antibody product, consideration must be given to species and immunoglobulin specificity, conjugate type, fragment and chain specificity, level of cross-reactivity, and host-species source and fragment composition.
Synonyms:	Rabbit Anti-Mouse IgG1 (Gamma 1 chain) Antibody fluorescein Conjugation, Rabbit Anti-Mouse IgG1 FITC Conjugated Antibody
Host Species:	Rabbit
Specificity:	IgG1
Conjugate:	Fluorescein (FITC)
Clonality:	Polyclonal
Format:	IgG
F/P Ratio:	3.42

Target Details

Reactivity:	Mouse
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Immunogen:	Mouse IgG1 heavy chain
Purity/Specificity:	This product was prepared from monospecific antiserum by immunoaffinity chromatography using antigens coupled to agarose beads followed by solid phase adsorption(s) to remove any unwanted reactivities. Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-Fluorescein, anti-Rabbit Serum, Mouse IgG and Mouse Serum. Specificity was confirmed by ELISA.

Application Details

Tested Applications:	WB
Suggested Applications:	IF (Based on references)
Application Note:	Mouse IgG1 secondary antibody conjugated to FITC is available in a variety of formats. Anti-Mouse IgG1 Fluorescein Antibody has been tested by western blot and is suitable for immunofluorescence microscopy, fluorescence based plate assays (FLISA) and fluorescent western blotting. This IgG1 antibody is also suitable for multiplex analysis, including multicolor imaging, utilizing various commercial platforms.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
FC:	User Optimized
FLISA:	1:10,000 - 1:50,000
IF:	1:500 - 1:2,500

Formulation

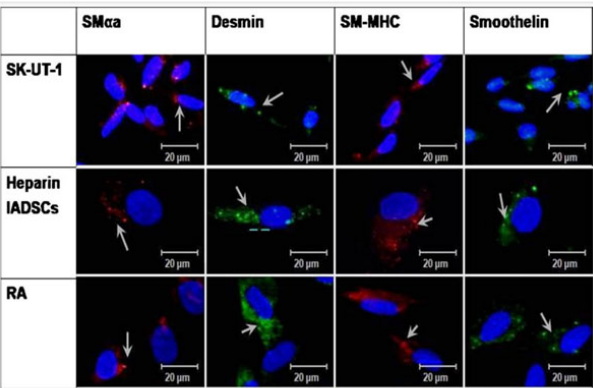
Physical State:	Lyophilized
Concentration:	1.0 mg/mL by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	10 mg/mL Bovine Serum Albumin (BSA) - Immunoglobulin and Protease free
Reconstitution Volume:	1.0 mL
Reconstitution Buffer:	Restore with deionized water (or equivalent)

Shipping & Handling

Shipping Condition:	Ambient
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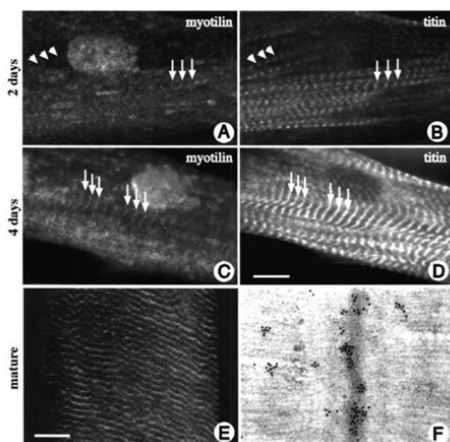
Storage Condition:	Store secondary antibody at 4° C prior to restoration. For extended storage aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

Images



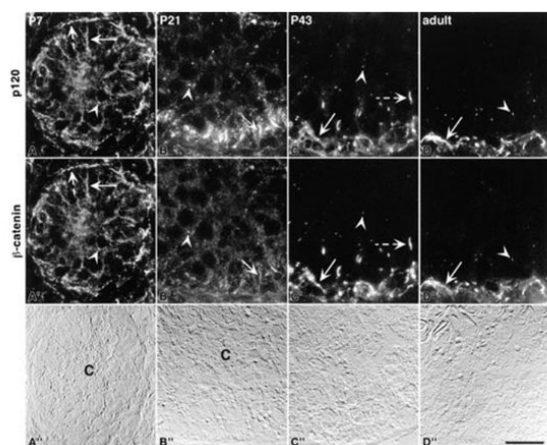
Immunofluorescence Microscopy

Isolated hADSCs (IADSCs) were differentiated into SMCs using retinoic acid (RA), heparin was used as a positive control, while SK-UT-1 cells was used as a SMC control. Expression of SMC markers smooth muscle alpha actin (SM-αa, red, Texas Red Conjugated anti-Mouse IgG2, γ2a chain specific, p/n 610–4941), desmin (green, Fluorescein Conjugated anti-Mouse IgG1, γ1 chain specific, p/n 610–4240), smooth muscle myosin heavy chain (SM-MHC, red, Texas Red Conjugated anti-Mouse κ, kappa chain specific, p/n 610–4910), and smoothelin (green, Fluorescein Conjugated anti-Mouse IgG1, γ1 chain specific, p/n 610–4240) in differentiated SMCs was determined by indirect immunofluorescence. Nuclei were counter stained with DAPI (blue). Expression of all four markers can be seen in all the cells, particularly in RA differentiated SMCs. Fig. 5. PMID: 21373882.



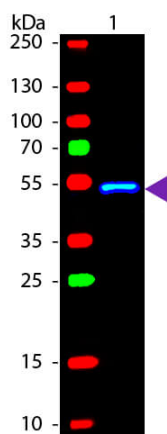
Immunofluorescence Microscopy

Localization of myotilin in differentiating and mature myocytes. Human skeletal muscle cells were grown on glass coverslips, differentiated for 4 days and stained with myotilin antibody (A and C) and with Z-disc specific titin antibody T12 mAb IgG1 (B and D) using Anti-Mouse IgG1 FITC. During the early stages of myofibril assembly, myotilin expression was faint and diffuse. The protein was concentrated at the areas where myofibrils are formed, and, although numerous Z-discs could be discerned, only very few of them contained myotilin (arrows in A and B). Only at the stage of myofibril alignment did myotilin appear at the mature, aligned Z-discs (arrows in C and D). In mature human skeletal muscle sections myotilin is found in a cross-striated pattern (E). Immunoelectron microscopic analysis of mature human skeletal muscle stained with myotilin antibody reveals a decoration of Z-discs (F). Bar=10 μm. Fig 7. PMID: 12499399.



Immunofluorescence Microscopy

Colocalization of p120 and β -catenin using Anti-Mouse IgG1 FITC (p/n 610-4240) during postnatal testis development. Here, the 8D11 antibody was used to immunostain for p120. In all locations, p120 and β -catenin showed exact colocalization. At Postnatal Day 7 (A), diffuse immunostaining outlined all cells of the developing epithelium (solid arrow). In addition, punctate structures (arrowhead) were observed throughout the tubule. At the tubule periphery, intense immunostaining was associated with peritubular cells (dashed arrows). From Day 21 through adulthood, p120 and β -catenin colocalized at basal inter-Sertoli junctions (arrows in B–D), and at punctate, spermatocyte-associated structures (arrowheads in B–D). In addition, extended, linear immunostaining at the level of spermatocytes was observed at Day 43 (C and C'; dashed arrows). Corresponding DIC images are shown in A'', B'', C'', and D''. The center (C) of Day 7 and Day 21 seminiferous tubules is indicated in the DIC images. In all images, the seminiferous tubule basement membrane is located at the bottom, and in C'' and D'', the entire seminiferous epithelium is shown. Bar = 20 μm. Fig 2. PMID: 11906917.



Western Blot

Western blot of Fluorescein conjugated Rabbit Anti-Mouse IgG1 (Gamma 1 chain) secondary antibody. Lane 1: Mouse IgG1. Lane 2: None. Load: 50 ng per lane. Primary antibody: None. Secondary antibody: Fluorescein rabbit secondary antibody at 1:1,000 for 60 min at RT. Blocking: MB-070 for 30 min at RT. Predicted/Observed size: 55 kDa, 55 kDa for Mouse IgG1 (Gamma 1 chain). Other band(s): None.

References

- de Villers JA et al. Influence of low intensity laser irradiation on isolated human adipose derived stem cells over 72 hours and their differentiation potential into smooth muscle cells using retinoic acid. *Stem Cell Rev Rep.* (2011)
- Salmikangas P et al. Myotilin, the limb-girdle muscular dystrophy 1A (LGMD1A) protein, cross-links actin filaments and controls sarcomere assembly. *Hum Mol Genet.* (2003)
- Johnson KJ et al. Dynamic testicular adhesion junctions are immunologically unique. I. Localization of p120 catenin in rat testis. *Biol Reprod.* (2002)

Disclaimer

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