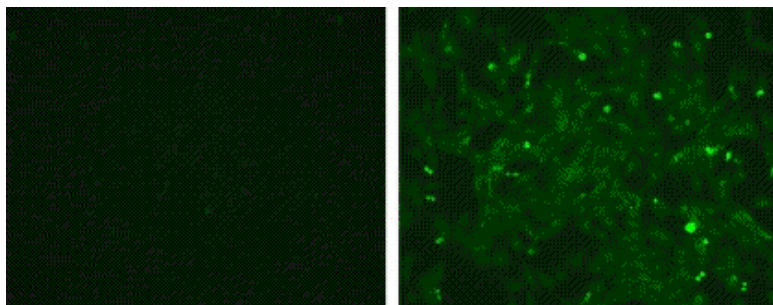


Anti-Myogenin Alexa Fluor® 488

Catalog Number: 53-5643

RUO: For Research Use Only. Not for use in diagnostic procedures.



Immunocytochemistry of fixed and permeabilized C2C12 cells using 5 ug/mL of Mouse IgG1 kappa Isotype Control Alexa Fluor® 488 (cat. no. 53-4714) (left) or Anti-Myogenin Alexa Fluor® 488 (right).

Product Information

Contents: Anti-Myogenin Alexa Fluor® 488

REF **Catalog Number:** 53-5643

Clone: F5D

Concentration: 0.5 mg/mL

Host/Isotype: Mouse IgG1

Formulation: aqueous buffer, 0.09% sodium azide, may contain carrier protein/stabilizer



Temperature Limitation: Store at 2-8°C. Do not freeze. Light sensitive material.



LOT **Batch Code:** Refer to Vial



Use By: Refer to Vial

Description

This F5D monoclonal antibody reacts with human, mouse, dog, and rat myogenin, a 34-kDa transcription factor. Expressed in skeletal and heart muscle, myogenin is a member of the MyoD family of basic-helix-loop-helix proteins, which also includes MyoD, Myf5, and MRF4. This transcription factor interacts with other helix-loop-helix proteins, which may or may not be muscle-specific. Myogenin plays a significant role in myogenic differentiation, even directing nonmuscle cells to the myogenic lineage. Transforming growth factor-beta (TGFβ) and bone morphogenetic protein-2 (BMP2) inhibit myogenin transcriptional activity. Predominantly residing within the nucleus, the subcellular localization of myogenin has been shown to be dependent on differentiation status and cell density. For instance, trafficking of myogenin between the nucleus and cytoplasm has been reported during skeletal muscle differentiation to mediate transcription control.

Applications Reported

This F5D antibody has been reported for use in immunocytochemistry.

Applications Tested

This F5D antibody has been tested by immunocytochemistry of the C2C12 cell line. This can be used at less than or equal to 5-20 ug/mL. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

References

Ferri P, Barbieri E, Burattini S, Guescini M, D'Emilio A, Biagiotti L, Del Grande P, De Luca A, Stocchi V, Falcieri E. Expression and subcellular localization of myogenic regulatory factors during the differentiation of skeletal muscle C2C12 myoblasts. *J. Cell Biochem.* 2009 Oct 14.

Li D, Niu Z, Yu W, Qian Y, Wang Q, Li Q, Yi Z, Luo J, Wu X, Wang Y, Schwartz RJ, Liu M. SMYD1, the myogenic activator, is a direct target of serum response factor and myogenin. *Nucleic Acids Res.* 2009 Sep 25.

Lindon C, Albagli O, Pinset C, Montarras D. Cell density-dependent induction of endogenous myogenin (myf4) gene expression by Myf5. *Dev Biol.* 2001 Dec 15;240(2):574-84.

Wright WE, Dac-Korytko I, Farmer K. Monoclonal antimyogenin antibodies define epitopes outside the bHLH domain where binding interferes with protein-protein and protein-DNA interactions. *Dev Genet.* 1996;19(2):131-8. (F5D, WB)

Chakraborty T, Martin JF, Olson EN. Analysis of the oligomerization of myogenin and E2A products in vivo using a two-hybrid assay system. *J Biol Chem.* 1992 Sep 5;267(25):17498-501.

Martin JF, Li L, Olson EN. Repression of myogenin function by TGF-beta 1 is targeted at the basic helix-loop-helix motif and is independent of E2A products. *J Biol Chem.* 1992 Jun 5;267(16):10956-60.

Related Products

53-4714 Mouse IgG1 K Isotype Control Alexa Fluor® 488 (P3.6.2.8.1)

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