

DESCRIPTION

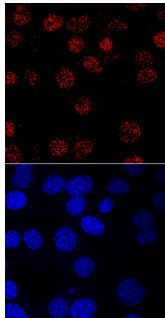
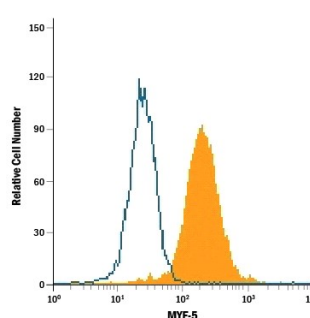
Species Reactivity	Human/Mouse
Specificity	Detects human MYF-5 in direct ELISAs.
Source	Monoclonal Mouse IgG _{2A} Clone # 593128
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human MYF-5 Met1-Leu255 Accession # P13349
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

	Recommended Concentration	Sample
Immunocytochemistry	8-25 µg/mL	See Below
Intracellular Staining by Flow Cytometry	0.25 µg/10 ⁶ cells	See Below
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

DATA

<p>Immunocytochemistry</p>  <p>MYF-5 in C2C12 Mouse Cell Line. MYF-5 was detected in immersion fixed C2C12 mouse myoblast cell line using Mouse Anti-Human/Mouse MYF-5 Monoclonal Antibody (Catalog # MAB4027) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red, upper panel; Catalog # NL007) and counterstained with DAPI (blue, lower panel). Specific staining was localized to nuclei. View our protocol for Fluorescent ICC Staining of Cells on Coverslips.</p>	<p>Intracellular Staining by Flow Cytometry</p>  <p>Detection of MYF-5 in C2C12 Mouse Cell Line by Flow Cytometry. C2C12 mouse myoblast cell line was stained with Mouse Anti-Human/Mouse MYF-5 Monoclonal Antibody (Catalog # MAB4027, filled histogram) or isotype control antibody (Catalog # MAB003, open histogram), followed by Allophycocyanin-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # F0101B). To facilitate intracellular staining, cells were fixed with paraformaldehyde and permeabilized with saponin.</p>
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PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.5 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

MYF-5 (Myogenic Factor 5), also known as bHLHc2, is a 37-39 kDa transcriptional activator that belongs to the bHLH superfamily of myogenic regulatory factors. It is found in embryonic skeletal muscle progenitors and neurons, and is induced by SHH and Wnt1. Expression of MYF-5 protein prompts nonmuscle cells to adopt a muscle precursor phenotype. Notably, neurons appear to block MYF-5 accumulation, thus preserving their unique phenotype. MYF-5 forms heterodimers with multiple molecules. When complexed to I-mfa, MYF-5 is retained in the cytoplasm and is inactive; when complexed to E12, MYF-5 is transcriptionally active. Phosphorylation regulates MYF-5 stability. Human MYF-5 is 255 amino acids (aa) in length. It contains one myogenic basic region (aa 1-83) followed by an HLH motif (aa 96-135). Full-length human MYF-5 (aa 1-255) shares 89% aa sequence identity with mouse MYF-5.