OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for AM20011FC-N

Integrin alpha-7 / ITGA7 Mouse Monoclonal Antibody [Clone ID: 3C12]

Product data:

Product Type:	Primary Antibodies
Clone Name:	3C12
Applications:	FC
Recommended Dilution:	**Flow Cytometry:** 25-50 µg/mL (final concentration). ***Positive Control:*** C2C12. Detailed Procedure is provided in the following**Protocols.**
Reactivity:	Mouse
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Mouse myoblasts.
Specificity:	This antibody reacts with Mouse Integrin alpha-7 on Flow Cytometry.
Formulation:	PBS containing 1% BSA as stabilizer and0.1% ProClin 150 as preservative. Label: FITC State: Liquid purified IgG fraction.
Concentration:	0.5 mg/ml
Purification:	Protein-A Sepharose Chromatography.
Conjugation:	FITC
Storage:	Store the antibody undiluted at 2-8°C.
Stability:	Shelf life: one year from despatch.
Database Link:	Q61738

View online »

Background:

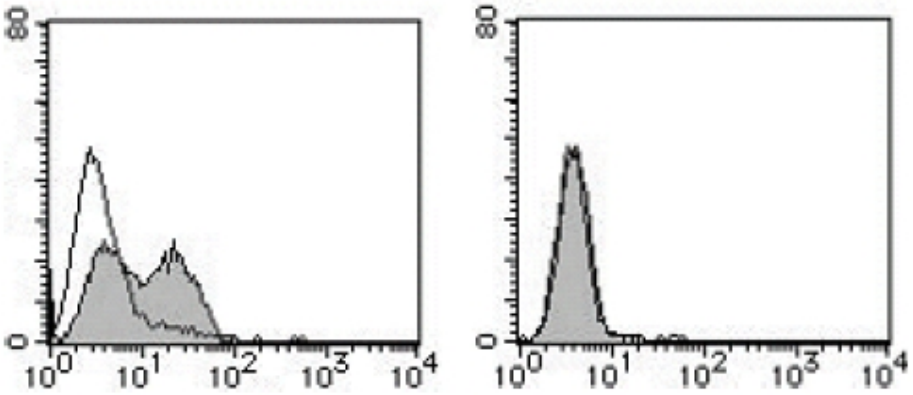
The integrin family of adhesion molecules participate in important cell-cell and cell-extracellular matrix interactions in a diverse range of biological processes. Integrins are heterodimers consisting of an alpha subunit and a beta subunit. Both alpha and beta subunits are transmembrane proteins with large extracellular domains (>100 kDa for alpha subunit and >75 kDa for beta subunit) that interact with extracellular matrix proteins and relatively small cytoplasmic domains (50 amino acids or less, except for the beta-4 subunit) that interact with cytoskeletal proteins. The adhesiveness of integrins is dynamically regulated in response to cytoplasmic signals, termed “inside-out” signaling. It has been reported that, upon ligand binding, integrins regulate many intracellular signaling pathways that involve cytoplasmic alkalization, intracellular Ca2+ fluctuation, inositol lipid metabolism, protein kinase C, MAP kinase and phosphatidyl inositol kinase. Integrin alpha-7 is a specific cellular receptor for the basement membrane protein laminin-1, as well as for the laminin isoforms-2 and -4. The alpha-7 subunit is expressed mainly in skeletal and cardiac muscle and may be involved in differentiation and migration processes during myogenesis. Absence of integrin alpha-7 results in muscular dystrophy is revealed.

Note:

This product was originally produced by MBL International.

Protocol: **Flow Cytometric Analysis for Floating Cells**
We usually use Fisher tubes or equivalents as reaction tubes for all step described below.
1) Wash the cells 3 times with washing buffer [PBS containing 2% fetal calf serum (FCS) and 0.1% NaN3].
2) Resuspend the cells with washing buffer (5x10e6 cells/mL).
3) Add 50 µL of the cell suspension into each tube, and centrifuge at 500 x g for 1 minute at room temperature (20~25°C). Remove supernatant by careful aspiration.
4) Add 10 µL of normal goat serum containing 1 mg/mL normal human IgG and 0.1% NaN3 to the cell pellet after tapping. Mix well and incubate for 5 minutes at room temperature.
5) Add 40 µL of the primary antibody at the concentration suggested in the APPLICATIONS, diluted in the washing buffer. Mix well and incubate for 30 minutes at room temperature.
6) Add 1 mL of the washing buffer followed by centrifugation at 500 x g for 1 minute at room temperature. Remove supernatant by careful aspiration.
7) Resuspend the cells with 500 µL of the washing buffer and analyze by a flow cytometer.
Positive Control for Flow Cytometry: C2C12

Product images:



Flow Cytometric analysis of Mouse Integrin alpha-7 expression on NIH/3T3 (Left) and C2C12 (Right). Open Histogram indicates the reaction of Isotypic Control to the cells. Shaded Histograms indicate the reaction of ITGA7 antibody to the cells.