Mouse Fibroblast Activation Protein α/FAP Antibody

Monoclonal Rat IgG_1 Clone # 983802

Catalog Number: MAB9727

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse Fibroblast Activation Protein α/FAP in direct ELISAs.
Source	Monoclonal Rat IgG_1 Clone # 983802
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse Fibroblast Activation Protein α/FAP Leu26-Asp761 Accession # P97321
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.

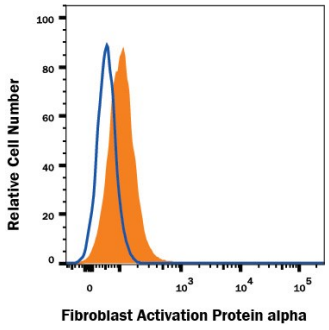
APPLICATIONS

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
Flow Cytometry	0.25 µg/10^6 cells	See Below
Immunocytochemistry	8-25 µg/mL	See Below
ELISA	This antibody functions as an ELISA capture antibody when paired with Rat Anti-Mouse Fibroblast Activation Protein α/FAP Monoclonal Antibody (Catalog # MAB97271). *This product is intended for assay development on various assay platforms requiring antibody pairs.*	

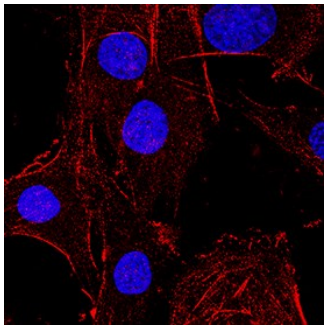
DATA

Flow Cytometry



Detection of Fibroblast Activation Protein alpha/FAP in C2C12 Mouse Cell Line by Flow Cytometry. C2C12 mouse myoblast cell line was stained with Rat Anti-Mouse Fibroblast Activation Protein alpha/FAP Monoclonal Antibody (Catalog # MAB9727, filled histogram) or isotype control antibody (Catalog # MAB005, open histogram), followed by Phycoerythrin-conjugated Anti-Rat IgG Secondary Antibody (Catalog # F0105B). View our protocol for Staining Membrane-associated Proteins.

Immunocytochemistry



Fibroblast Activation Protein α/FAP in C2C12 Mouse Cell Line. Fibroblast Activation Protein α/FAP was detected in immersion fixed C2C12 mouse myoblast cell line using Rat Anti-Mouse Fibroblast Activation Protein α/FAP Monoclonal Antibody (Catalog # MAB9727) at 8 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Rat IgG Secondary Antibody (red; Catalog # NL013) and counterstained with DAPI (blue). Specific staining was localized to plasma membrane and cytoplasm. View our protocol for Fluorescent ICC Staining of Cells on Coverslips.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
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.** • 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.

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BACKGROUND

FAP (also known as seprase) is a 95 kDa Type II transmembrane serine protease that is structurally related to dipeptidyl peptidase IV (DPPIV/CD26) (1, 2). Within the extracellular domain, mouse FAP shares 90% and 97% amino acid (aa) sequence identity with human and rat FAP, respectively (3, 4). Alternative splicing of mouse FAP generates isoforms with a 33 aa or 5 aa deletion in the extracellular juxtamembrane region (3). FAP is expressed on reactive stromal fibroblasts in tumor tissue and wound healing and on synoviocytes in rheumatoid arthritis (1, 5-7). It exhibits dipeptidyl peptidase activity with substrate specificity similar to DPPIV, which is specific for N-terminal Xaa-Pro sequences (5, 8). FAP is also an endopeptidase that can degrade Gelatin, Collagens I and IV, Fibronectin, and Laminin (1, 5, 8) as well as several peptide hormones (*e.g.* Neuropeptide Y, Brain Natriuretic Peptide, Substance P, Peptide YY, and Incretins) (9). The enzymatic activity is dependent on FAP association with DPPIV on the cell surface (5, 8, 10, 11). The matrix-dedgrading activity of FAP contributes to tumor cell migration and invasion (10-13). In addition, FAP can enhance tumor cell growth by limiting the development of anti-tumor immunity (14).

References:

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