

Human Fibroblast Activation Protein α /FAP Alexa Fluor® 647-conjugated Antibody

Monoclonal Mouse IgG₁ Clone # 427819

Catalog Number: FAB3715R

100 μ g

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Fibroblast Activation Protein α /FAP in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant human DPP6 is observed.
Source	Monoclonal Mouse IgG ₁ Clone # 427819
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant human Fibroblast Activation Protein α /FAP Leu26-Asp760 Accession # Q12884
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 nm
Formulation	Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

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	0.25-1 μ g/10 ⁶ cells	WI-38 human lung fibroblast cell line

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. <ul style="list-style-type: none"> 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

FAP (also known as Seprase) is a 97 kDa Type II transmembrane serine protease that is structurally related to Dipeptidyl Peptidase IV (DPP-IV) (1). FAP has substrate specificity similar to DPP-IV, which is specific for N-terminal Xaa-Pro sequences, but FAP is also an endopeptidase able to degrade gelatin and Type I Collagen (2). The enzymatically active form of FAP is a dimer that migrates at ~170 kDa. It is associated with multiple integral membrane proteins such as Integrin $\alpha_3\beta_1$, UPA and DPP-IV (3,4). FAP has a restricted tissue distribution. It is occasionally detected in fibroblasts and pancreatic islet cells, but is highly expressed on reactive stromal fibroblasts in epithelial cancers, in granulation tissue during wound healing, and in bone and soft tissue sarcomas (4-6). Because of its expression patterns and enzymatic activities, FAP is believed to play roles in tumor invasion, tissue remodeling, and wound repair. The 760 amino acid (aa) human FAP contains a 735 aa extracellular domain that is glycosylated and necessary for activity (4). It shares 90% aa identity with mouse and rat FAP. A reported 672 aa splicing variant diverges prior to the active site charge relay residues at the C-terminus.

References:

1. Scanlan, M.J. *et al.* (1994) Proc. Natl. Acad. Sci. USA **91**:5657.
2. Park, J.E. *et al.* (1999) J. Biol. Chem. **274**:36505.
3. Pineiro-Sanchez, M.L. *et al.* (1997) J. Biol. Chem. **272**:7595.
4. O'Brien, P. and B.F. O'Connor (2008) Biochim. Biophys. Acta **1784**:1130.
5. Garin-Chesa, P. *et al.* (1990) Proc. Natl. Acad. Sci. USA **87**:7235.
6. Rettig, W.J. *et al.* (1988) Proc. Natl. Acad. Sci. USA **85**:3110.

PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc, and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.