

# Human Fibroblast Activation Protein $\alpha$ /FAP Alexa Fluor® 405-conjugated Antibody

Monoclonal Mouse IgG<sub>1</sub> Clone # 427819

Catalog Number: FAB3715V

100  $\mu$ g

## DESCRIPTION

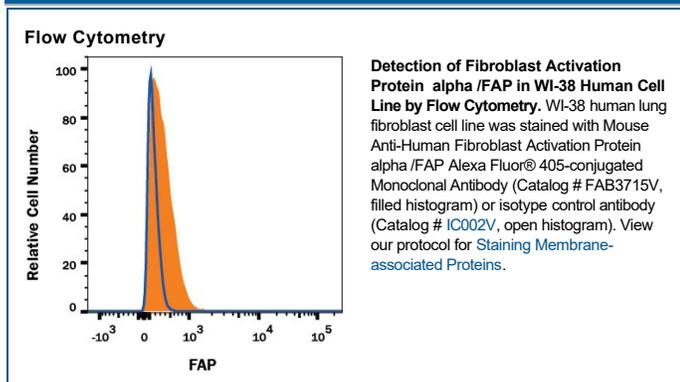
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human Fibroblast Activation Protein $\alpha$ /FAP in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant human DPP6 is observed.
<b>Source</b>	Monoclonal Mouse IgG <sub>1</sub> Clone # 427819
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	<i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant human Fibroblast Activation Protein $\alpha$ /FAP Leu26-Asp760 Accession # Q12884
<b>Conjugate</b>	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 nm
<b>Formulation</b>	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
<b>Flow Cytometry</b>	0.25-1 $\mu$ g/10 <sup>6</sup> cells	See Below

## DATA



## PREPARATION AND STORAGE

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

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## BACKGROUND

FAP (also known as Sepsase) 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.

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