

DESCRIPTION

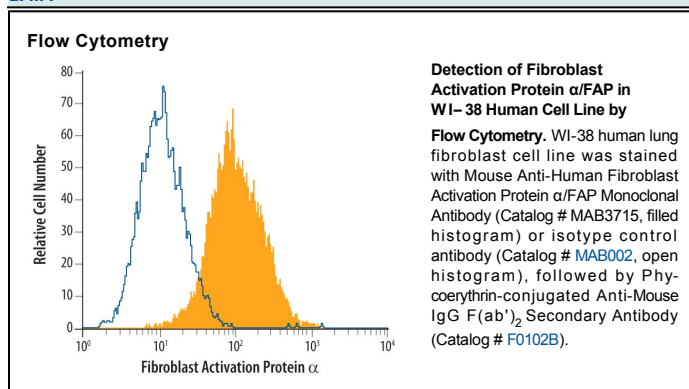
Species Reactivity	Human
Specificity	Detects human Fibroblast Activation Protein α /FAP in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant human DPP6 is observed.
Source	Monoclonal Mouse IgG ₁ Clone # 427819
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant human Fibroblast Activation Protein α /FAP Leu26-Asp760 Accession # Q12884
Formulation	Lyophilized from a 0.2 μ m filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 μ m 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	2.5 μ g/10 ⁶ cells	See Below
Human Fibroblast Activation Protein α/FAP Sandwich Immunoassay		Reagent
ELISA Capture	2-8 μ g/mL	Human Fibroblast Activation Protein α /FAP Antibody (Catalog # MAB3715)
ELISA Detection	0.1-0.4 μ g/mL	Human Fibroblast Activation Protein α /FAP Biotinylated Antibody (Catalog # BAF3715)
Standard		Recombinant Human Fibroblast Activation Protein α /FAP (Catalog # 3715-SE)

DATA



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. <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

FAP (also known as Seprase) is a 97 kDa Type II transmembrane serine protease that is structurally related to Dipeptidyl Peptidase IV (DPPIV) (1). FAP has substrate specificity similar to DPPIV, 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 DPPIV (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.