SANTA CRUZ BIOTECHNOLOGY, INC.

FAP (73.3): sc-517381

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

FAP (fibroblast activation protein) is a cell surface glycoprotein and serine protease that is expressed primarily in fetal mesenchymal tissues and epithelial cancer fibroblasts. In cancer, FAP functions to promote cellular proliferation. In embryonic development, FAP functions to remodel developing tissues. FAP acts as an integral membrane gelatinase composed of N-glycosylated proteolytically inactive subunits. FAP expression on chondrocyte membranes is upregulated by the combination of the cytokines IL-1 and OSM and has been shown to increase in osteoarthritic patients. This expression is co-localized with MMP-1 and MMP-13 as well as CD44 (variants v3 and v7/8). Mice that lack all copies of the FAP gene have been found to be fertile and to have developmental defects or change in cancer susceptibility.

REFERENCES

1. Scanlan, M.J., et al. 1994. Molecular cloning of fibroblast activation protein α, a member of the serine protease family selectively expressed in stromal fibroblasts of epithelial cancers. Proc. Natl. Acad. Sci. USA 91: 5657-5661.
2. Mathew, S., et al. 1995. The gene for fibroblast activation protein α (FAP), a putative cell surface-bound serine protease expressed in cancer stroma and wound healing, maps to chromosome band 2q23. Genomics 25: 335-337.
3. Pineiro-Sanchez, M.L., et al. 1997. Identification of the 170 kDa melanoma membrane-bound gelatinase (seprase) as a serine integral membrane protease. J. Biol. Chem. 272: 7595-7601.
4. Goldstein, L.A., et al. 1997. Molecular cloning of seprase: a serine integral membrane protease from human melanoma. Biochim. Biophys. Acta 1361: 11-19.
5. Iwasa, S., et al. 2005. Increased expression of seprase, a membrane-type serine protease, is associated with lymph node metastasis in human colorectal cancer. Cancer Lett. 227: 229-236.

CHROMOSOMAL LOCATION

Genetic locus: Fap (mouse) mapping to 2 C1.3.

SOURCE

FAP (73.3) is a mouse monoclonal antibody raised against mouse fibroblast activation protein transfected NIH/3T3 cells.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

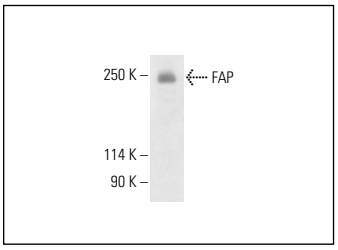
FAP (73.3) is recommended for detection of FAP of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Molecular Weight of FAP: 170 kDa.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



FAP (73.3): sc-517381. Western blot analysis of FAP expression in HeLa whole cell lysate. Detection reagent used: m-IgG Fc BP-HRP: sc-525409.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.