# Anti-FAP Antibody [JA56-11]

## ET1704-23



Product Type	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human Mouse Rat
Applications:	WB_IHC-P_mIHC_IHC-Fr
Applications.	Prodicted band cizo: 88 kDa
Clone number:	JA50-11
Description:	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-1and 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.
lmmunogen:	Recombinant protein within Human FAP1 aa 1-160 / 760.
Positive control:	U-87 MG cell lysates, human pancreatic carcinoma, human colon cancer tissue.
Subcellular location:	Cell membrane. Cell surface.
Database links:	SwissProt: Q12884 Human   P97321 Mouse   Q8R492 Rat
Recommended Dilutions: WB IHC-P mIHC IHC-Fr	1:1,000 1:1,000 1:3,000 1:200
Storage Buffer:	1*TBS (pH7.4), 0.05% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.
Storage Instruction:	Shipped at 4 $^\circ\!\!\mathbb{C}$ . Store at +4 $^\circ\!\!\mathbb{C}$ short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20 $^\circ\!\!\mathbb{C}$ long term.
Purity:	Protein A affinity purified.

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Orders:0086-571-88062880

Technical:0086-571-89986345

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Applications:WB=Western blot IHC-P=Immunohistochemistry (paraffin) IF-Cell=Immunofluorescence (Cell) IF-Tissue=Immunofluorescence (Tissue) FC=Flow cytometry IP=Immunoprecipitation

#### Images





**Fig1:** Western blot analysis of FAP on U-87 MG cell lysates with Rabbit anti-FAP antibody (ET1704-23) at 1/1,000 dilution.

Lysates/proteins at 20 µg/Lane. Predicted band size: 88 kDa Observed band size: 100 kDa Exposure time: 5 minutes; ECL: K1801; 4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (ET1704-23) at 1/1,000 dilution was used in 5% NFDM/TBST at  $4^{\circ}$ C overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

Fig2: Fluorescence multiplex immunohistochemical analysis of the pancreatic carcinoma (Formalin/PFA-fixed paraffinhuman embedded sections). Panel A: the merged image of anti-CD31 (M1511-8, green), anti-α-SMA (ET1607-53, red) and anti-FAP (ET1704-23, yellow) on human pancreatic carcinoma. Panel B: anti- CD31 stained on the endothelial cells. Panel C: anti-a-SMA stained on cancer-associated fibroblasts and smooth muscle cells. Panel D: anti-FAP stained on the cancer-associated fibroblasts. HRP Conjugated UltraPolymer Goat Polyclonal Antibody HA1119/HA1120 was used as a secondary antibody. The immunostaining was performed with the Sequential Immunostaining Kit (IRISKit<sup>™</sup>MH010101, www.luminiris.cn). The section was incubated in three rounds of staining: in the order of M1511-8 (1/5000 dilution), ET1704-23 (1/1000 dilution), and ET1607-53 (1/3000 dilution) for 20 mins at room temperature. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins at 95℃. DAPI (blue) was used as a nuclear counter stain. Image acquisition was performed with Nikon ECLIPSE Ni-E microscope.



**Fig3:** Immunohistochemical analysis of paraffin-embedded human colon cancer tissue with Rabbit anti-FAP antibody (ET1704-23) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH<sub>2</sub>O and PBS, and then probed with the primary antibody (ET1704-23) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

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**Fig4:** Immunofluorescence analysis of frozen mouse colon tissue with Rabbit anti-FAP antibody (ET1704-23) at 1/200 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for about 2 minutes in microwave oven. The tissues were blocked in 10% negative goat serum for 1 hour at room temperature, washed with PBS, and then probed with the primary antibody (ET1704-23, green) at 1/500 dilution overnight at 4  $^{\circ}$ C, washed with PBS. Goat Anti-Rabbit IgG H&L (iFluor M 488, HA1121) was used as the secondary antibody at 1/1,000 dilution. Nuclei were counterstained with DAPI (blue).

**Fig5:** Immunofluorescence analysis of frozen rat colon tissue with Rabbit anti-FAP antibody (ET1704-23) at 1/200 dilution.



The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for about 2 minutes in microwave oven. The tissues were blocked in 10% negative goat serum for 1 hour at room temperature, washed with PBS, and then probed with the primary antibody (ET1704-23, green) at 1/500 dilution overnight at 4  $^{\circ}$ C, washed with PBS. Goat Anti-Rabbit IgG H&L (iFluor M 488, HA1121) was used as the secondary antibody at 1/1,000 dilution. Nuclei were counterstained with DAPI (blue).

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

#### **Background References**

- 1. Jia, B. et al. 2016. GPR30 Promotes Prostate Stromal Cell Activation via Suppression of ERα Expression and Its Downstream Signaling Pathway. Endocrinology. 157: 3023-35.
- Knopf, JD. et al. 2015. The stromal cell-surface protease fibroblast activation protein-α localizes to lipid rafts and is recruited to invadopodia. Biochim. Biophys. Acta. 1853: 2515-25.

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