ARG81500
Human Fibroblast activation protein ELISA Kit

Package: 96 wells
Store at: 4°C

Component

Cat. No.	Component Name	Package	Temp
ARG81500-001	Antibody-coated microplate	8 X 12 strips	4°C. Unused strips should be sealed tightly in the air-tight pouch.
ARG81500-002	Standard	2 X 10 ng/vial	4°C
ARG81500-003	Standard/Sample diluent	30 ml (Ready to use)	4°C
ARG81500-004	Antibody conjugate concentrate (100X)	1 vial (100 µl)	4°C
ARG81500-005	Antibody diluent buffer	12 ml (Ready to use)	4°C
ARG81500-006	HRP-Streptavidin concentrate (100X)	1 vial (100 µl)	4°C
ARG81500-007	HRP-Streptavidin diluent buffer	12 ml (Ready to use)	4°C
ARG81500-008	25X Wash buffer	20 ml	4°C
ARG81500-009	TMB substrate	10 ml (Ready to use)	4°C (Protect from light)
ARG81500-010	STOP solution	10 ml (Ready to use)	4°C
ARG81500-011	Plate sealer	4 strips	Room temperature

Summary

Product Description	ARG81500 Human Fibroblast activation protein ELISA Kit is an Enzyme Immunoassay kit for the quantification of Human Fibroblast activation protein in serum, plasma (heparin, EDTA) and cell culture supernatants.
Tested Reactivity	Hu
Tested Application	ELISA
Specificity	There is no detectable cross-reactivity with other relevant proteins.
Target Name	Fibroblast activation protein
Conjugation	HRP
Conjugation Note	Substrate: TMB and read at 450 nm.
Sensitivity	31.25 pg/ml
Sample Type	Serum, plasma (heparin, EDTA) and cell culture supernatants.
Standard Range	62.5 - 4000 pg/ml
Sample Volume	100 µl

Precision	Intra-Assay CV: 5.7% Inter-Assay CV: 6.8%
Alternate Names	Fibroblast activation protein alpha; SIMP; Seprase; Integral membrane serine protease; Surface-expressed protease; EC 3.4.21.26; Dipeptidyl peptidase FAP; 170 kDa melanoma membrane-bound gelatinase; EC 3.4.14.5; APCE; Serine integral membrane protease; DPPIV; EC 3.4.21.-; FAPalpha; Gelatine degradation protease FAP; Post-proline cleaving enzyme; Prolyl endopeptidase FAP; FAPA

Application Instructions

Assay Time	~ 5 hours

Properties

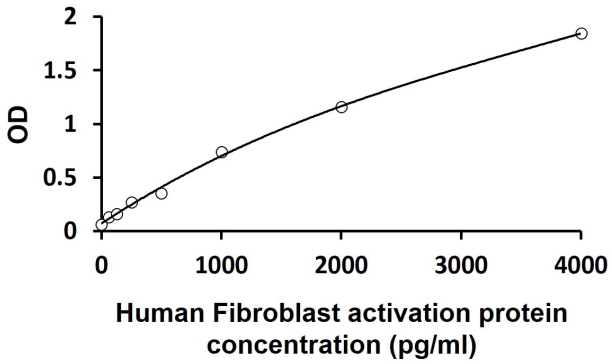
Form	96 well
Storage instruction	Store the kit at 2-8°C. Keep microplate wells sealed in a dry bag with desiccants. Do not expose test reagents to heat, sun or strong light during storage and usage. Please refer to the product user manual for detail temperatures of the components.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	FAP
Gene Full Name	fibroblast activation protein, alpha
Background	The protein encoded by this gene is a homodimeric integral membrane gelatinase belonging to the serine protease family. It is selectively expressed in reactive stromal fibroblasts of epithelial cancers, granulation tissue of healing wounds, and malignant cells of bone and soft tissue sarcomas. This protein is thought to be involved in the control of fibroblast growth or epithelial-mesenchymal interactions during development, tissue repair, and epithelial carcinogenesis. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Apr 2014]
Function	Cell surface glycoprotein serine protease that participates in extracellular matrix degradation and involved in many cellular processes including tissue remodeling, fibrosis, wound healing, inflammation and tumor growth. Both plasma membrane and soluble forms exhibit post-proline cleaving endopeptidase activity, with a marked preference for Ala/Ser-Gly-Pro-Ser/Asn/Ala consensus sequences, on substrate such as alpha-2-antiplasmin SERPINF2 and SPRY2. Degrade also gelatin, heat-denatured type I collagen, but not native collagen type I and IV, vibronectin, tenascin, laminin, fibronectin, fibrin or casein. Have also dipeptidyl peptidase activity, exhibiting the ability to hydrolyze the prolyl bond two residues from the N-terminus of synthetic dipeptide substrates provided that the penultimate residue is proline, with a preference for Ala-Pro, Ile-Pro, Gly-Pro, Arg-Pro and Pro-Pro. Natural neuropeptide hormones for dipeptidyl peptidase are the neuropeptide Y (NPY), peptide YY (PYY), substance P (TAC1) and brain natriuretic peptide 32 (NPPB). The plasma membrane form, in association with either DPP4, PLAUR or integrins, is involved in the pericellular proteolysis of the extracellular matrix (ECM), and hence promotes cell adhesion, migration and invasion through the ECM. Plays a role in tissue remodeling during development and wound healing. Participates in the cell invasiveness towards the ECM in malignant melanoma cancers. Enhances tumor growth progression by increasing angiogenesis, collagen fiber degradation and apoptosis and by reducing antitumor response of the immune system. Promotes glioma cell invasion through the brain parenchyma by degrading the proteoglycan brevican. Acts as a tumor suppressor in melanocytic cells through regulation of cell proliferation and survival in a serine protease activity-independent manner. [UniProt]
Highlight	Related products: Fibroblast activation protein antibodies; Fibroblast activation protein ELISA Kits; Fibroblast activation protein Duos / Panels; Related news: New antibody panels for Myofibroblasts and CAFs New ELISA data calculation tool: Simplify the ELISA analysis by GainData

PTM	N-glycosylated. The N-terminus may be blocked. [UniProt]

Images



ARG81500 Human Fibroblast activation protein ELISA Kit standard curve image

ARG81500 Human Fibroblast activation protein ELISA Kit results of a typical standard run with optical density reading at 450 nm.