abcam

ab242391

Anti-Extracellular matrix protein 1 antibody [EPR6701] - BSA and Azide free

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EPR6701
Purification technique	Affinity purification Protein A
Concentration	1.052 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	-

Notes	-

Not recommended

Species	Rat
Dilution info	-
Notes	-

IP

Tested

Species	Human
Dilution info	-
Notes	-

Predicted

Species	Rat
Dilution info	-
Notes	-

WB

Expected

Species	Rat, Human
Dilution info	Use at an assay dependent concentration.
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	-
Notes	-

Predicted

Species	Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

Predicted

Species	Rat
Dilution info	-
Notes	-

Target data

See full target information Extracellular matrix protein 1

Function	Involved in endochondral bone formation as negative regulator of bone mineralization. Stimulates the proliferation of endothelial cells and promotes angiogenesis. Inhibits MMP9 proteolytic activity.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

ab242391 is the carrier-free version of ab126629.

Species reactivity
Mouse: We have preliminary internal testing data to indicate this antibody may not react with this species. Please contact us for more information.

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Conjugation ready
Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with 1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

Compatibility
This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	Extracellular matrix protein 1 often called ECM1 is a matrix protein involved in various mechanical functions in the body. This protein weighs approximately 61 kDa and is widely expressed in human tissues including skin bone lung and brain. ECM1 also goes by the name H3300 vector used in some experimental contexts. Being an extracellular matrix (ECM) component ECM1 plays roles in tissue organization influencing matrix proteins' structural integrity.
Biological function summary	ECM1 contributes to cell-matrix interactions and regulates various cell behaviors such as adhesion proliferation and differentiation. It does this by binding to other ECM proteins and is known not to be part of a specific complex. ECM1 facilitates communication between the cellular environment and matrix thereby supporting the architecture and dynamics of tissues. It modulates angiogenesis linking it with processes like wound healing and vascular development.

Pathways	ECM1 functions within the context of key signaling routes such as the PI3K/AKT pathway known for roles in cell growth and survival. ECM1 interacts with other proteins including matrix metalloproteinases contributing to matrix remodeling activities important for cellular migration and invasion. Cumulatively these interactions highlight ECM1's place in connective tissue organization and regenerative processes.
Associated diseases and disorders	ECM1's dysregulation links it with lipoid proteinosis and skin conditions like Atopic Dermatitis. Imbalances in ECM1 expression or function can lead to abnormal ECM assembly influencing these diseases' development. Moreover abnormalities in ECM1 can alter the behavior of related proteins such as collagen impacting skin integrity and permeability. Understanding ECM1's role could provide insights into therapeutic strategies for these conditions.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

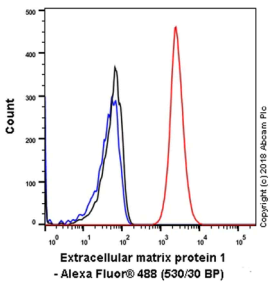
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

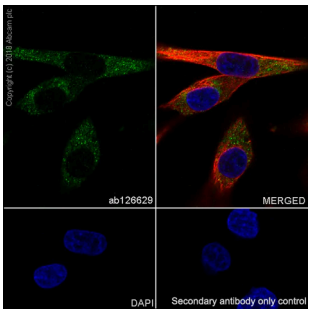
6 product images



Flow Cytometry (Intracellular) - Anti-Extracellular matrix protein 1 antibody [EPR6701] - BSA and Azide free (ab242391)

Extracellular matrix protein 1 Flow Cytometry (Intracellular) staining using rabbit Anti-Extracellular matrix protein 1 antibody

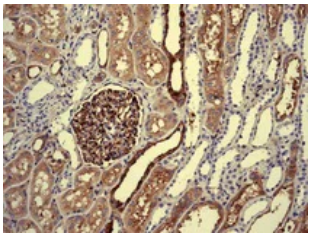
Intracellular Flow Cytometry analysis of A375 (Human malignant melanoma epithelial cell) cells labeling Extracellular matrix protein 1 with purified ab126629 at 1/20 dilution (10 µg/ml) (red). Cells were fixed with 4% Paraformaldehyde. A Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) secondary antibody was used at 1/2000. Isotype control - Rabbit monoclonal IgG (Black). Unlabeled control - Cell without incubation with primary antibody and secondary antibody (Blue).



Immunocytochemistry/ Immunofluorescence - Anti-Extracellular matrix protein 1 antibody [EPR6701] - BSA and Azide free (ab242391)

Extracellular matrix protein 1 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Extracellular matrix protein 1 antibody

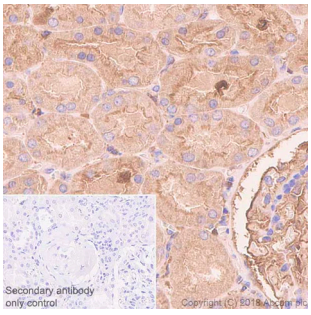
Immunocytochemistry/ Immunofluorescence analysis of A375 (Human malignant melanoma epithelial cell) cells labeling Extracellular matrix protein 1 with purified ab126629 at 1:100 dilution (2.0 µg/ml). Cells were fixed in 4% Paraformaldehyde and permeabilized with 0.1% tritonX-100. Cells were counterstained with ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1:200 (2.5 µg/ml). Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) was used as the secondary antibody at 1:1000 (2 µg/ml) dilution. DAPI nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Extracellular matrix protein 1 antibody [EPR6701] - BSA and Azide free (ab242391)

Extracellular matrix protein 1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Extracellular matrix protein 1 antibody

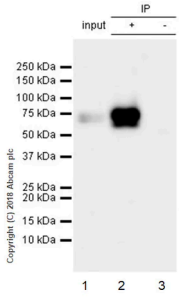
ab126629, at 1/100, staining Extracellular matrix protein 1 in formalin fixed, paraffin embedded Human kidney tissue by Immunohistochemistry. This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab126629). Heat mediated antigen retrieval was performed with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Extracellular matrix protein 1 antibody [EPR6701] - BSA and Azide free (ab242391)

Extracellular matrix protein 1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Extracellular matrix protein 1 antibody

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human kidney tissue sections labeling Extracellular matrix protein 1 with purified ab126629 at 1:100 dilution (2.01 µg/ml). Heat mediated antigen retrieval was performed using ab93684 (Tris/EDTA buffer, pH 9.0). ImmunoHistoProbe one step HRP Polymer (ready to use) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.

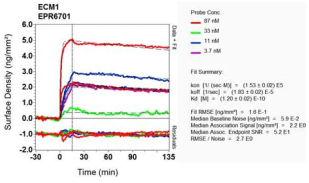


Immunoprecipitation - Anti-Extracellular matrix protein 1 antibody [EPR6701] - BSA and Azide free (ab242391)

ab126629 (purified) at 1:20 dilution (2µg) immunoprecipitating Extracellular matrix protein 1 in A375 whole cell lysate.
Lane 1 (input): A375 (Human malignant melanoma epithelial cell) whole cell lysate 10µg
Lane 2 (+): ab126629 & A375 whole cell lysate
Lane 3 (-): Rabbit monoclonal IgG (ab172730) instead of ab126629 in A375 whole cell lysate
For western blotting, VeriBlot for IP Detection Reagent (HRP) (ab131366) was used for detection at 1:1000 dilution.
Blocking and diluting buffer: 5% NFDM/TBST.
All lanes:
Immunoprecipitation - Anti-Extracellular matrix protein 1 antibody [EPR6701] (ab126629)

Predicted band size: 61 kDa, 78 kDa

Observed band size: 60 kDa



OI-RD Scanning - Anti-Extracellular matrix protein 1 antibody [EPR6701] - BSA and Azide free (ab242391)

We have systematically measured KD (the equilibrium dissociation constant between the antibody and its antigen), of more than 840 recombinant antibodies to assess not only their individual KD values but also to see the average affinity of antibody. Based on the comparison with published literature values for mouse monoclonal antibodies, Recombinant antibodies appear to be on average 1-2 order of magnitude higher affinity.

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