abcam

ab264564

Anti-THBS4 antibody [EPR22922-232] - 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	EPR22922-232
Purification technique	Affinity purification Protein A
Concentration	1.026 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Tested

Species	Human, Mouse
Dilution info	-

Notes	-

Expected

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

WB

Tested

Species	Mouse, Rat, Human
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Mouse, Rat, Human
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Rat, Mouse
Dilution info	-
Notes	-

Expected

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

Flow Cyt (Intra)

Tested

Species	Rat, Mouse
Dilution info	-
Notes	-

Expected

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

Target data

See full target information THBS4

Function Adhesive glycoprotein that mediates cell-to-cell and cell-to-matrix interactions and is involved in various processes including cellular proliferation, migration, adhesion and attachment, inflammatory response to CNS injury, regulation of vascular inflammation and adaptive responses of the heart to pressure overload and in myocardial function and remodeling. Binds to structural extracellular matrix (ECM) proteins and modulates the ECM in response to tissue damage, contributing to cardioprotective and adaptive ECM remodeling. Plays a role in ER stress response, via its interaction with the activating transcription factor 6 alpha (ATF6) which produces adaptive ER stress response factors and protects myocardium from pressure overload. May contribute to spinal presynaptic hypersensitivity and neuropathic pain states after peripheral nerve injury. May play a role in regulating protective astrogenesis from the subventricular zone (SVZ) niche after injury in a NOTCH1-dependent manner (By similarity).

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

ab264564 is the carrier-free version of ab263898.

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	THBS4 also known as Thrombospondin-4 is a glycoprotein with a mass of approximately 105 kDa. It is part of the thrombospondin family which is known for binding to various cell surface receptors and components of the extracellular matrix. THBS4 is expressed in many tissues including the brain heart and skeletal muscle. Its structure allows it to interact with other proteins and play a role in cell-matrix communication.
Biological function summary	THBS4 interacts with molecules in the extracellular matrix to regulate cellular functions such as adhesion migration and proliferation. It often operates within a complex network of proteins modulating cell interactions and tissue remodeling. This protein contributes to synaptic functions in the nervous system and soft tissue repair. The presence of THBS4 in different tissue types suggests it has diverse roles across the body's systems.
Pathways	This protein is a component of the signaling pathways related to inflammatory and repair processes. THBS4 participates in the TGF-beta (Transforming Growth Factor-beta) signaling pathway which involves other proteins like TGF-beta itself and

integrins. It influences wound healing and fibrosis through its effects on cellular behavior and signaling cascades.

Associated diseases and disorders

Alterations in THBS4 levels can associate with conditions such as myocardial infarction and osteoarthritis. Abnormal expression or function of THBS4 can disrupt normal tissue repair and inflammation control contributing to disease progression. The protein's interaction with integrins and collagen is significant in understanding its role in these conditions highlighting its potential as a therapeutic target for modulating tissue repair and disease processes.

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

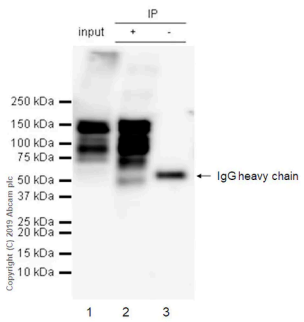
We do not recommend this combination. It is not covered by our product promise.

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



Immunoprecipitation - Anti-THBS4 antibody [EPR22922-232] - BSA and Azide free (ab264564)

THBS4 was immunoprecipitated from 0.35 mg human skeletal muscle lysate 10µg with ab263898 at 1/30 dilution (2µg in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab263898 at 1/500 dilution. VeriBlot for IP Detection Reagent (HRP) (ab131366) was used at 1/1000 dilution.
Lane 1: Human skeletal muscle lysate 10µg

Lane 2: ab263898 IP in human skeletal muscle lysate

Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab263868 in human skeletal muscle lysate

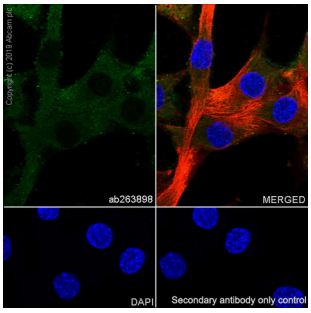
Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 3 seconds.

The expression profile and molecular weight observed is consistent with what has been described in the literature (PMID:30669608).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab263898).
All lanes:
Immunoprecipitation - Anti-THBS4 antibody [EPR22922-232] (ab263898)

Predicted band size: 106 kDa

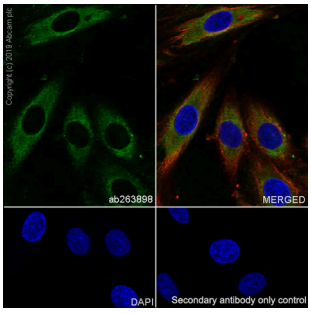


Immunocytochemistry/ Immunofluorescence - Anti-THBS4 antibody [EPR22922-232] - BSA and Azide free (ab264564)

THBS4 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-THBS4 antibody

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized C2C12 (Mouse myoblast) cells labeling THBS4 with ab263898 at 1/100 (6.9 µg/ml) dilution, followed by ab150077 AlexaFluor®488 Goat anti-Rabbit secondary antibody at 1/1000 (2 µg/ml) dilution (Green). Confocal image showing cytoplasmic staining in C2C12 cell line is observed. ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 dilution (Red). The nuclear counterstain was DAPI (Blue). Secondary antibody only control: ab150077 AlexaFluor®488 Goat anti-Rabbit secondary at 1/1000 (2 µg/ml) dilution.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab263898).

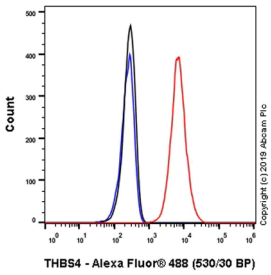


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THBS4 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-THBS4 antibody

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized L6 (Rat skeletal muscle myoblast) cells labeling THBS4 with ab263898 at 1/100 (6.9 µg/ml) dilution, followed by ab150077 AlexaFluor®488 Goat anti-Rabbit secondary antibody at 1/1000 (2 µg/ml) dilution (Green). Confocal image showing cytoplasmic staining in L6 cell line is observed. ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 dilution (Red). The nuclear counterstain was DAPI (Blue). Secondary antibody only control: ab150077 AlexaFluor®488 Goat anti-Rabbit secondary at 1/1000 (2 µg/ml) dilution.

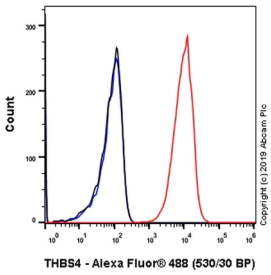
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Flow Cytometry (Intracellular) - Anti-THBS4 antibody [EPR22922-232] - BSA and Azide free (ab264564)

THBS4 Flow Cytometry (Intracellular) staining using rabbit Anti-THBS4 antibody

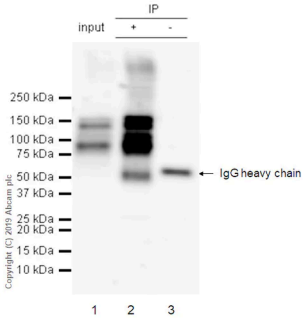
Intracellular flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized C2C12 (Mouse myoblasts myoblast) cells labeling THBS4 with ab263898 at 1/700 (Red) compared with a Rabbit monoclonal IgG (ab172730) / Black isotype control and an unlabeled control (cells without incubation with primary antibody and secondary antibody) (Blue). A Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) at 1/2000 dilution was used as the secondary antibody.
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Flow Cytometry (Intracellular) - Anti-THBS4 antibody [EPR22922-232] - BSA and Azide free (ab264564)

THBS4 Flow Cytometry (Intracellular) staining using rabbit Anti-THBS4 antibody

Intracellular flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized L6 (Rat skeletal muscle myoblast) cells labeling THBS4 with ab263898 at 1/700 (Red) compared with a Rabbit monoclonal IgG (ab172730) / Black isotype control and an unlabeled control (cells without incubation with primary antibody and secondary antibody) (Blue). A Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) at 1/2000 dilution was used as the secondary antibody.
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Immunoprecipitation - Anti-THBS4 antibody [EPR22922-232] (ab263898)

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Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.