abcam

ab240301

Anti-DSTN antibody [EPR15827(B)] - 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	EPR15827(B)
Purification technique	Affinity purification Protein A
Concentration	1.001 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Tested

Species	Human
Dilution info	-

Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

WB

Expected

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

ICC/IF

Tested

Species	Human
Dilution info	-
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-

Notes	ab199376 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

IHC-P

Tested

Species	Human
Dilution info	-
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

Target data

See full target information DSTN

Function	Actin-depolymerizing protein. Severs actin filaments (F-actin) and binds to actin monomers (G-actin). Acts in a pH-independent manner.

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

ab240301 is the carrier-free version of ab186754.

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	DSTN also known as destrin or actin depolymerizing factor is an actin-binding protein with a relatively low molecular mass of approximately 19 kDa. DSTN plays a significant role in actin filament dynamics by enhancing the disassembly of actin filaments into monomeric actin components thereby regulating cytoskeleton organization. The protein is present in a wide range of tissues including the brain and skeletal muscles indicating its importance in various physiological processes.
Biological function summary	DSTN regulates actin cytoskeleton remodeling impacting cell shape and motility. It acts by binding to actin enhancing the turnover and dismantling of actin filaments which is critical for maintaining cellular architecture. DSTN is not known to be part of a larger protein complex but it interacts with other actin-related proteins to exert its function efficiently. Its role in cell movement and structure integrates it into larger cellular processes such as cell division migration and potentially signal transduction.

Pathways	Cytoskeletal rearrangement and cell motility highlight the involvement of DSTN. DSTN associates closely with the Rho and Rac signaling pathways pivotal for cytoskeletal changes and cell division processes. Through these pathways DSTN contributes to modulating cellular responses by interacting with proteins like cofilin another actin-binding protein. This interaction with signaling pathways highlights DSTN's broader influence on cellular functions.
Associated diseases and disorders	DSTN has an association with neurodegenerative diseases and cancer progression. Aberrations in its activity can result in cytoskeletal dysfunctions to which disorders such as Alzheimer’s disease relate due to the importance of cytoskeletal integrity in neuron function. Additionally DSTN's involvement in cell motility links it to cancer metastasis where unchecked cell movement promotes tumor spread. In these diseases DSTN collaborates mutably with the tau protein and other cytoskeletal regulators highlighting DSTN's relevance in pathological 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

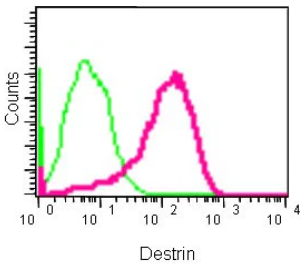
We do not recommend this combination. It is not covered by our product promise.

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.

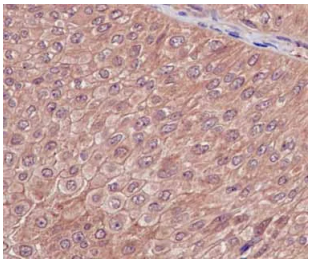
6 product images



Flow Cytometry (Intracellular) - Anti-DSTN antibody [EPR15827(B)] - BSA and Azide free (ab240301)

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

Intracellular flow cytometric analysis of 2% paraformaldehyde-fixed MCF-7 cells labeling DSTN with ab186754 at 1/360 dilution (red) compared to a Rabbit monoclonal IgG isotype control (green), followed by Goat anti rabbit IgG (FITC) secondary antibody at 1/150 dilution.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab186754).

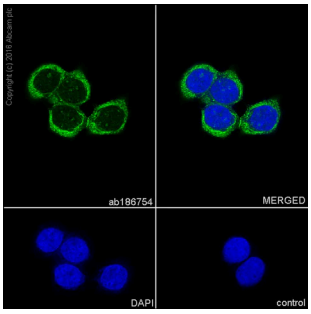


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-DSTN antibody [EPR15827(B)] - BSA and Azide free (ab240301)

DSTN Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-DSTN antibody

Immunohistochemical analysis of paraffin-embedded Human bladder transitional cell carcinoma tissue labeling DSTN with ab186754 at 1/100 dilution followed by prediluted HRP Polymer for Rabbit IgG. Counter stained with Hematoxylin.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab186754).

Perform heat mediated antigen retrieval with EDTA buffer pH 9 before commencing with IHC staining protocol.

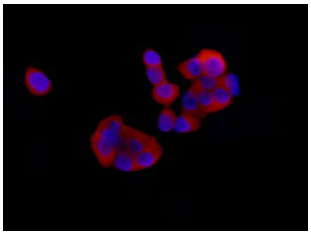


Immunocytochemistry/ Immunofluorescence - Anti-DSTN antibody [EPR15827(B)] - BSA and Azide free (ab240301)

DSTN Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-DSTN antibody

ab186754 staining DSTN in MCF-7 (human breast carcinoma) cells by ICC/IF (Immunocytochemistry/immunofluorescence). Cells were fixed with 100% methanol.. Samples were incubated with primary antibody at a dilution of 1/500. A goat anti rabbit IgG (Alexa Fluor® 488) (ab150077) was used as the secondary antibody at a dilution of 1/1000. DAPI was used as a nuclear counterstain.
Negative control 1:PBS only.

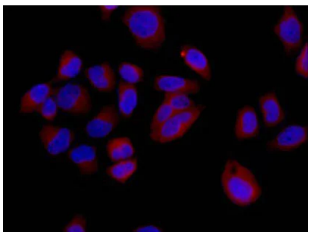
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab186754).



Immunocytochemistry/ Immunofluorescence - Anti-DSTN antibody [EPR15827(B)] - BSA and Azide free (ab240301)

DSTN Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-DSTN antibody

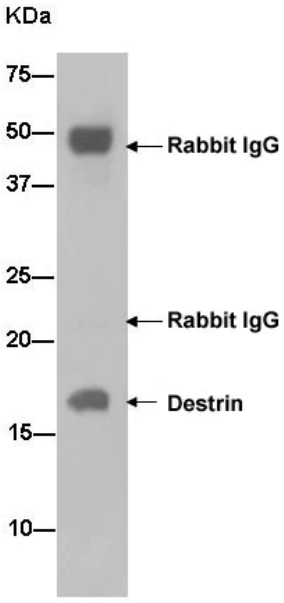
Immunofluorescent analysis of 4% paraformaldehyde-fixed MCF-7 cells labeling DSTN with ab186754 at 1/1000 dilution followed by Goat anti rabbit IgG (Alexa Fluor® 555) secondary antibody at 1/200 dilution. Counter stained with Dapi (blue).
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab186754).



Immunocytochemistry/ Immunofluorescence - Anti-DSTN antibody [EPR15827(B)] - BSA and Azide free (ab240301)

DSTN Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-DSTN antibody

Immunofluorescent analysis of 4% paraformaldehyde-fixed HeLa cells labeling DSTN with ab186754 at 1/500 dilution followed by Goat anti rabbit IgG (Alexa Fluor® 555) secondary antibody at 1/200 dilution. Counter stained with Dapi (blue).
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab186754).



Immunoprecipitation - Anti-DSTN antibody [EPR15827(B)] - BSA and Azide free (ab240301)

Western blot analysis of DSTN in A549 cell lysate immunoprecipitated with ab186754 at 1/50 dilution.
Secondary antibody: Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugate at 1/1000 dilution.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab186754).

All lanes:
Immunoprecipitation - Anti-DSTN antibody [EPR15827(B)] (ab186754)

Predicted band size: 19 kDa

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