abcam

ab113413

Anti-SDF4 antibody

Key facts

Isotype	IgG
Host species	Goat
Storage buffer	pH: 7.3 Preservative: 0.02% Sodium azide Constituents: 99% Tris buffered saline, 0.5% BSA
Form	Liquid
Clonality	Polyclonal
Immunogen	Synthetic Peptide within Human SDF4 aa 150-200. The exact immunogen used to generate this antibody is proprietary information. Database link Q9BRK5
Purification technique	Affinity purification Immunogen
Specificity	ab113413 is expected to recognize both reported isoforms (NP_057631.1; NP_057260.2).
Concentration	0.5 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	ab11343 was purified from goat serum by ammonium sulphate precipitation followed by antigen affinity chromatography using the immunizing peptide.

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	5-10 µg/mL
Notes	

Perform heat-mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	0.1-0.3 µg/mL
Notes	1 hour primary incubation is recommended for this product.

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

Flow Cyt

Tested

Species	Human
Dilution info	10 µg/mL
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	10 µg/mL
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

Target data

See full target information SDF4

Function	May regulate calcium-dependent activities in the endoplasmic reticulum lumen or post-ER compartment. Isoform 5 may be involved in the exocytosis of zymogens by pancreatic acini.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Supplementary info

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

Activity summary	SDF4 also known as Stromal Cell Derived Factor 4 or Cab45 is a calcium-binding protein with a molecular mass of approximately 45 kDa. It is expressed in the Golgi

	apparatus of cells in various tissues including pancreas liver and brain. SDF4 plays a mechanical role in sorting and trafficking of proteins through the secretory pathway specifically during the transport of secretory cargo in the Golgi.
Biological function summary	This protein participates in the regulation of calcium-dependent vesicle transport. It does not function as part of a large protein complex but interacts with different proteins in the Golgi for sorting activities. SDF4's ability to bind calcium allows it to modulate interactions necessary for vesicle movement and cargo recognition affecting how proteins exit the Golgi and are distributed to other areas of the cell.
Pathways	Studies show SDF4 is involved in the cellular secretory pathway and calcium signaling pathway. Within these pathways SDF4 interacts with proteins like co-chaperone SIL1 to ensure proper protein folding and trafficking. SDF4 also contributes to vesicle budding processes that are essential for maintaining proper cellular function and homeostasis.
Associated diseases and disorders	Dysfunction of SDF4 links to disorders such as diabetes and neurodegenerative diseases. Abnormal SDF4 expression impacts proteins like insulin in the pancreatic pathway contributing to diabetes through misfolding or improper secretion of insulin. In neurodegenerative conditions SDF4's disrupted association with proteins involved in calcium homeostasis affects synaptic function and neuron health implicating it in diseases like Alzheimer's.

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

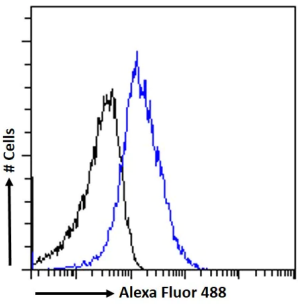
We do not recommend this combination. It is not covered by our product promise.

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.

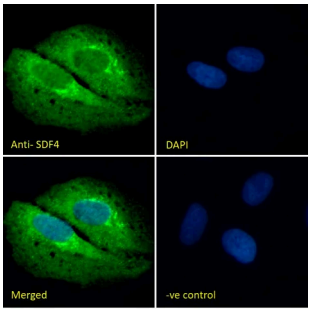
3 product images



Flow Cytometry - Anti-SDF4 antibody (ab113413)

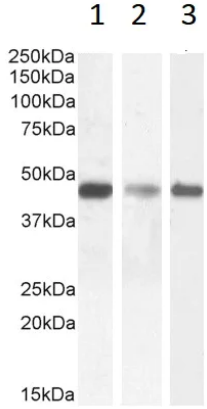
SDF4 Flow Cytometry staining using goat Anti-SDF4 antibody

Flow cytometric analysis of paraformaldehyde fixed HeLa cells (blue line), permeabilized with 0.5% Triton. Primary incubation 1hr (10µg/mL) followed by Alexa Fluor 488 secondary antibody (1µg/mL). IgG control: Unimmunized goat IgG (black line) followed by Alexa Fluor 488 secondary antibody.



Immunocytochemistry/ Immunofluorescence - Anti-SDF4 antibody (ab113413)

Immunofluorescence analysis of paraformaldehyde fixed U2OS cells, permeabilized with 0.15% Triton. Primary incubation 1hr (10ug/ml) followed by Alexa Fluor 488 secondary antibody (2ug/ml), showing Golgi and cytoplasmic staining. The nuclear stain is DAPI (blue). Negative control: Unimmunized goat IgG (10ug/ml) followed by Alexa Fluor 488 secondary antibody (2ug/ml).



Western blot - Anti-SDF4 antibody (ab113413)

Lysates in RIPA buffer. Detected by chemiluminescence.
All lanes:
Western blot - Anti-SDF4 antibody (ab113413) at 0.1 µg/mL

Lane 1:
Jurkat cell lysate at 35 µg

Lane 2:
HeLa cell lysate at 35 µg

Lane 3:
U251 cell lysate at 35 µg

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