abcam

ab177146

Anti-Sbf1 antibody [EPR12566]

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR12566
Purification technique	Affinity purification Protein A
Concentration	0.614 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Tested

Species	Mouse
Dilution info	1/1000
Notes	-

Species	Human

Dilution info	1/1000 - 1/10000
Notes	-

Predicted

Species	Rat
Dilution info	-
Notes	-

ICC/IF

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

IP

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human

Dilution info	1/10 - 1/100
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Expected

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

Predicted

Species	Rat
Dilution info	-
Notes	-

Target data

See full target information SBF1

Function	Acts as an adapter for the phosphatase MTMR2 to regulate MTMR2 catalytic activity and subcellular location (PubMed:12668758). Promotes the exchange of GDP to GTP, converting inactive GDP-bound Rab proteins into their active GTP-bound form (PubMed:20937701). May function as a guanine nucleotide exchange factor (GEF) activating RAB28 (PubMed:20937701). Acts as a suppressor of autophagy in neurons (PubMed:35580604). Together with its binding partner, the phosphatase MTMR2, plays a role in dephosphorylation of phosphoinositides critical for autophagy initiation and autophagosome maturation (PubMed:35580604). Plays a role in positively regulating late-stage radial sorting of large caliber axons, a process leading to myelination by Schwann cells, possibly via regulating endosomal trafficking (By similarity). Inhibits myoblast differentiation in vitro and induces oncogenic transformation in fibroblasts (PubMed:9537414).

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage duration	1-2 weeks
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

Notes

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.

Supplementary info

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

Activity summary	Sbf1 also known as SET-binding factor 1 mechanistically acts as a pseudophosphatase due to having a phosphatase sequence motif but lacking phosphatase activity. Sbf1 with a molecular weight of approximately 206 kDa is expressed in various tissues including the brain and the immune system. It belongs to a protein family associated with cellular regulation and its pseudophosphatase domain is significant for its interactions with other proteins.
Biological function summary	Sbf1 contributes to cellular regulation and signaling pathways. It is known for its involvement in regulating cell growth and migration. Sbf1 does not act alone often forming complexes with other proteins that modulate its function. Researchers have noted its role in cellular structures involved in maintaining the cytoskeleton and intercellular connections which further implicates it in essential cellular processes.
Pathways	Sbf1 interacts within the mTOR signaling pathway a critical pathway for regulating cell growth and metabolism. It also plays a role in the PI3K/AKT pathway important for controlling various cellular processes including proliferation and survival. Through these pathways Sbf1 interacts with proteins such as mTOR and AKT contributing to maintaining cellular functions related to growth signals and nutrient sensing.
Associated diseases and disorders	Sbf1 connects to cancer and neurological disorders. Mutations or altered expressions in Sbf1 have been observed in certain types of cancer including breast

cancer where it can affect cellular proliferation and survival. Additionally its association with proteins involved in neurological processes suggests a potential link to neurodegenerative disorders. Proteins such as mTOR in cancer and AKT in neurological disorders provide direct connections to Sbf1 highlighting its role in pathways related to these diseases.

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

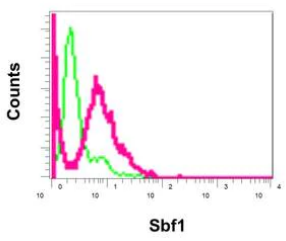
We do not recommend this combination. It is not covered by our product promise.

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.

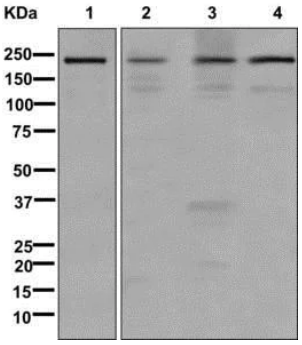
3 product images



Flow Cytometry (Intracellular) - Anti-Sbf1 antibody [EPR12566] (ab177146)

Sbf1 Flow Cytometry (Intracellular) staining using rabbit Anti-Sbf1 antibody

Intracellular flow cytometric analysis of permeabilized Ramoscells labeling Sbf1with ab177146 at 1/10 dilution (red), or a rabbit IgG (negative) (green).



Western blot - Anti-Sbf1 antibody [EPR12566] (ab177146)

Sbf1 Western blot staining using rabbit Anti-Sbf1 antibody

All lanes:
Western blot - Anti-Sbf1 antibody [EPR12566] (ab177146) at 1/1000 dilution

Lane 1:
Raji lysate at 10 µg

Lane 2:
Ramos lysate at 10 µg

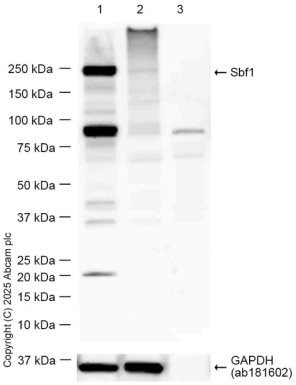
Lane 3:
Daudi lysate at 10 µg

Lane 4:
Human fetal brain lysate at 10 µg

Secondary

All lanes:
Goat anti-rabbit HRP at 1/2000 dilution

Predicted band size: 208 kDa



Western blot - Anti-Sbf1 antibody [EPR12566] (ab177146)

Sbf1 Western blot staining using rabbit Anti-Sbf1 antibody

In Western blot, anti-GAPDH antibody (ab181602) loading control staining at 1/1000000 dilution.

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

Negative: mouse ovary, small intestine (PMID: 11994405).
All lanes:
Western blot - Anti-Sbf1 antibody [EPR12566] (ab177146) at 1/1000 dilution

Lane 1:
Mouse testis tissue lysate at 20 µg

Lane 2:
Mouse ovary tissue lysate at 20 µg

Lane 3:
Mouse small intestine tissue lysate at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Observed band size: 208 kDa, 37 kDa

Exposure time: 20s

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