abcam

ab249752

Anti-LSM12 antibody [EPR12282] - 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	EPR12282
Purification technique	Affinity purification Protein A
Concentration	1.013 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Tested

Species	Human
Dilution info	-

Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

IP

Tested

Species	Human
Dilution info	-
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	-
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Mouse, Rat, Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

Target data

See full target information LSM12

Function	Nicotinic acid adenine dinucleotide phosphate (NAADP) binding protein (PubMed:34362892). Confers NAADP sensitivity to the two pore channel complex (TPCs) by acting as TPC accessory protein necessary for NAADP-evoked Ca(2+) release (PubMed:34362892).

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

ab249752 is the carrier-free version of ab173291.

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	LSM12 also known as LSM12 homolog is a protein with a molecular weight of approximately 16 kDa. This protein is part of the Sm-like family known for their role in RNA processing. LSM12 is ubiquitously expressed in various tissues but shows higher presence in brain tissue indicating its potential importance in neurological functions. Its expression patterns suggest that LSM12 may have diverse roles across different cellular contexts.
Biological function summary	This protein is involved in cellular processes associated with mRNA decay and stability. LSM12 is a component of the LSM protein complex which plays an important role in RNA metabolism. The complex ensures accurate degradation and processing of mRNAn important steps required for maintaining cellular RNA homeostasis. Within the complex LSM12 interacts with other LSM proteins to promote efficient RNA handling and control.
Pathways	LSM12 is associated with RNA processing pathways including the nonsense-mediated decay (NMD) pathway. This pathway ensures the elimination of faulty mRNA transcripts which if left unchecked can disrupt cellular functions. In these

pathways LSM12 may interact with UPF1 a well-known protein involved in NMD aiding in identifying and degrading erroneous mRNA molecules. This suggests that LSM12 supports the maintenance of genomic integrity through RNA surveillance mechanisms.

Associated diseases and disorders

Researchers link LSM12 to neurodegenerative diseases like amyotrophic lateral sclerosis (ALS) and Alzheimer's disease. These connections highlight the significance of proper RNA metabolism in neuronal function. LSM12's interaction with other RNA processing proteins such as TDP-43 in ALS suggests a potential disruption of RNA stability as a contributing factor in these diseases. The study of LSM12 offers valuable insights into therapeutic targets for neurological conditions related to mRNA dysfunction.

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

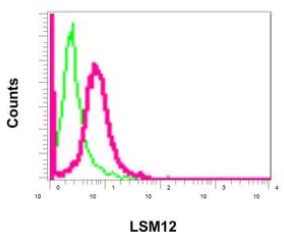
We do not recommend this combination. It is not covered by our product promise.

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.

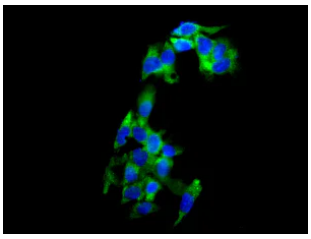
4 product images



Flow Cytometry (Intracellular) - Anti-LSM12 antibody [EPR12282] - BSA and Azide free (ab249752)

LSM12 Flow Cytometry (Intracellular) staining using rabbit Anti-LSM12 antibody

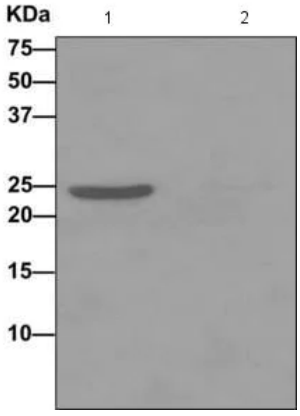
This data was developed using ab173291, the same antibody clone in a different buffer formulation.
Intracellular Flow Cytometry analysis of permeabilized 293T cells labeling LSM12 with ab173291 at 1/10 dilution (red), compared to a rabbit IgG negative control (green).



Immunocytochemistry/ Immunofluorescence - Anti-LSM12 antibody [EPR12282] - BSA and Azide free (ab249752)

LSM12 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-LSM12 antibody

This data was developed using ab173291, the same antibody clone in a different buffer formulation.
Immunofluorescent analysis of HepG2 cells labeling LSM12 with ab173291 at 1/100 dilution.

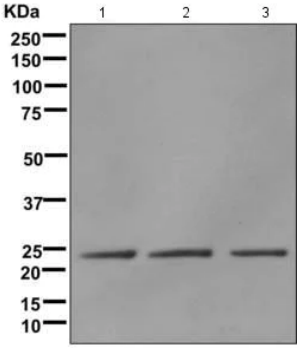


Immunoprecipitation - Anti-LSM12 antibody [EPR12282] - BSA and Azide free (ab249752)

This data was developed using ab173291, the same antibody clone in a different buffer formulation.
Western blot analysis on immunoprecipitation pellet from 1) HepG2 cell lysate or 2) 1X PBS (negative control) using ab173291 and HRP-conjugated anti-rabbit IgG preferentially detecting the non-reduced form of rabbit IgG.

All lanes:
Immunoprecipitation - Anti-LSM12 antibody [EPR12282] (ab173291)

Predicted band size: 22 kDa



Western blot - Anti-LSM12 antibody [EPR12282] - BSA and Azide free (ab249752)

LSM12 Western blot staining using rabbit Anti-LSM12 antibody

This data was developed using ab173291, the same antibody clone in a different buffer formulation.
All lanes:
Western blot - Anti-LSM12 antibody [EPR12282] (ab173291) at 1/1000 dilution

Lane 1:
293T cell lysate at 10 µg

Lane 2:
HepG2 cell lysate at 10 µg

Lane 3:
HeLa cell lysate at 10 µg

Predicted band size: 22 kDa

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