abcam

ab289965

Anti-LZTR1 antibody [EPR25253-51]

Recombinant | RabMAb | 20ul selling size

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	EPR25253-51
Purification technique	Affinity purification Protein A
Concentration	0.5 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Tested

Species	Human
Dilution info	1/50
Notes	-

Expected

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

Not recommended

Species	Rat
Dilution info	-
Notes	-

IP

Tested

Species	Mouse
Dilution info	1/30
Notes	-

Species	Human
Dilution info	1/30
Notes	-

Not recommended

Species	Rat
Dilution info	-
Notes	-

WB

Tested

Species	Mouse
Dilution info	1/1000
Notes	-

Species	Human
Dilution info	1/1000
Notes	-

Not recommended

Species	Rat
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Mouse, Rat, Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/50
Notes	-

Expected

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

Not recommended

Species	Rat
Dilution info	-

Notes	-

Target data

See full target information LZTR1

Function	Substrate-specific adapter of a BCR (BTB-CUL3-RBX1) E3 ubiquitin-protein ligase complex that mediates ubiquitination of Ras (K-Ras/KRAS, N-Ras/NRAS and H-Ras/HRAS) (PubMed:30442762, PubMed:30442766, PubMed:30481304). Is a negative regulator of RAS-MAPK signaling that acts by controlling Ras levels and decreasing Ras association with membranes (PubMed:30442762, PubMed:30442766, PubMed:30481304).

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	LZTR1 also known as Leucine Zipper-Like Transcription Regulator 1 is a protein that plays a significant role in cellular processes. It has a mass of approximately 95 kDa and is expressed across various tissues including the brain heart and skeletal muscle. LZTR1 acts as part of the ubiquitin-proteasome system contributing to protein degradation by tagging specific proteins for ubiquitination. This process helps in maintaining cellular homeostasis by regulating protein levels within the cell.
Biological function summary	LZTR1 contributes to cellular regulation and signaling by being part of the Cullin-RING E3 ubiquitin ligase complex. This complex is important for targeting proteins for ubiquitination and subsequent degradation. Through this role LZTR1 helps control cell cycle progression and apoptosis. Its activity affects the stability and activity of proteins involved in these critical cellular processes ensuring efficient cellular function and response to environmental stimuli.
Pathways	LZTR1 is actively involved in the Ras signaling pathway particularly in the Ras-MAPK pathway. It interacts with proteins like Ras GTPase influencing pathway outputs by regulating turnover of specific Ras proteins. This interaction with the Ras-MAPK pathway is important for proper signaling that controls cell growth and differentiation. LZTR1 also intersects with the Hippo signaling pathway further impacting cellular proliferation and apoptosis.
Associated diseases and disorders	LZTR1 is linked to conditions like Schwannomatosis and glioblastoma. Mutations or dysregulation of LZTR1 can disrupt normal cellular signaling and lead to uncontrolled proliferation associated with these diseases. In Schwannomatosis LZTR1 mutations are often found in conjunction with other proteins such as SMARCB1 which fuels tumorigenesis by impairing normal tumor suppressive functions. Understanding LZTR1's role in these disorders helps in developing therapeutic strategies targeting these pathways.

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

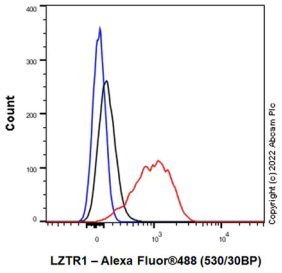
We do not recommend this combination. It is not covered by our product promise.

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.

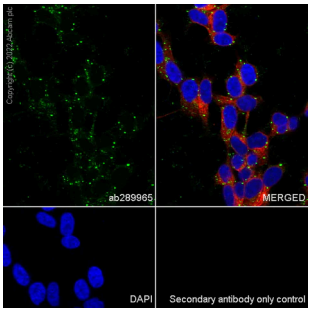
6 product images



Flow Cytometry (Intracellular) - Anti-LZTR1 antibody [EPR25253-51] (ab289965)

LZTR1 Flow Cytometry (Intracellular) staining using rabbit Anti-LZTR1 antibody

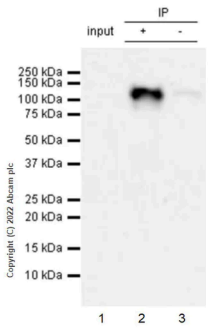
Flow cytometric analysis of 4% paraformaldehyde fixed, 90% methanol permeabilized SH-SY5Y (human neuroblastoma epithelial cell) cells labelling LZTR1 with ab289965 at 1/50 dilution (1µg) (Red) compared with a Rabbit monoclonal IgG (ab172730) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). A Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/2000 dilution was used as the secondary antibody.



Immunocytochemistry/ Immunofluorescence - Anti-LZTR1 antibody [EPR25253-51] (ab289965)

LZTR1 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-LZTR1 antibody

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized SH-SY5Y (Human neuroblastoma epithelial cell) cells labeling LZTR1 with ab289965 at 1/50 dilution, followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 dilution (Green). Confocal image showing cytoplasm staining in SH-SY5Y cell line. ab195889 Anti-alpha Tubulin mouse monoclonal antibody - 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: Secondary antibody is ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 dilution.



Immunoprecipitation - Anti-LZTR1 antibody [EPR25253-51] (ab289965)

LZTR1 was immunoprecipitated from HEK-293T (human embryonic kidney epithelial cell) whole cell lysate with ab289965 at 1/30 dilution (2µg in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab289965 at 1/1000 dilution. VeriBlot for IP secondary antibody(HRP)(ab131366) was used at 1/5000 dilution.
Lane 1: HEK-293T (human embryonic kidney epithelial cell) whole cell lysate 10 µg

Lane 2: ab289965 IP in HEK-293T whole cell lysate

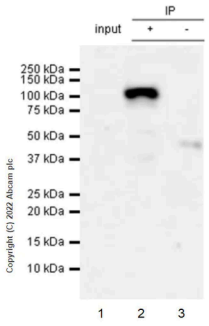
Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab289965 in HEK-293T whole cell lysate

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

Exposure time: 41 seconds
All lanes:
Immunoprecipitation - Anti-LZTR1 antibody [EPR25253-51] (ab289965)

Predicted band size: 94 kDa

Observed band size: 95 kDa



Immunoprecipitation - Anti-LZTR1 antibody [EPR25253-51] (ab289965)

LZTR1 was immunoprecipitated from NIH/3T3 (mouse embryonic fibroblast) whole cell lysate with ab289965 at 1/30 dilution (2µg in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab289965 at 1/1000 dilution. VeriBlot for IP secondary antibody(HRP) (ab131366) was used at 1/5000 dilution.
Lane 1: NIH/3T3 (mouse embryonic fibroblast) whole cell lysate10 µg

Lane 2: ab289965 IP in NIH/3T3 whole cell lysate

Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab289965 in NIH/3T3 whole cell lysate

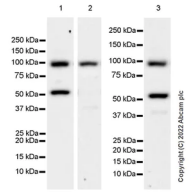
Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 41 seconds

All lanes:
Immunoprecipitation - Anti-LZTR1 antibody [EPR25253-51] (ab289965)

Predicted band size: 94 kDa

Observed band size: 95 kDa



Western blot - Anti-LZTR1 antibody [EPR25253-51] (ab289965)

LZTR1 Western blot staining using rabbit Anti-LZTR1 antibody

Blocking and diluting buffer and concentration: 5% NFDM/TBST.
The bands nearby 50 kDa could be non-specific bands.

Exposure times: Lane 1: 70 seconds; Lanes 2-3: 180 seconds.

All lanes:
Western blot - Anti-LZTR1 antibody [EPR25253-51] (ab289965) at 1/1000 dilution

Lane 1:
K562 (human chronic myelogenous leukemia lymphoblast) whole cell lysate at 20 µg

Lane 2:
SH-SY5Y (human neuroblastoma epithelial cell) whole cell lysate at 20 µg

Lane 3:
RAW264.7 (mouse Abelson murine leukemia virus-induced tumor macrophage) whole cell lysate at 20 µg

Secondary

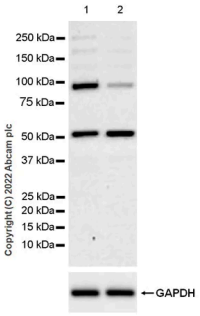
Lanes 1 - 3:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 100000 Cells

Lanes 1 - 3:
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/100000 dilution

Predicted band size: 94 kDa

Observed band size: 95 kDa

Western blot - Anti-LZTR1 antibody [EPR25253-51] (ab289965)



LZTR1 Western blot staining using rabbit Anti-LZTR1 antibody

Blocking and diluting buffer and concentration: 5% NFDM/TBST.
The bands nearby 50 kDa could be non-specific bands.

Exposure time: 3 minutes.

All lanes:
Western blot - Anti-LZTR1 antibody [EPR25253-51] (ab289965) at 1/1000 dilution

Lane 1:
HeLa (human cervix adenocarcinoma epithelial cell) transfected with scrambled siRNA control whole cell lysate at 12 µg

Lane 2:
HeLa transfected with siRNA specifically targeting LZTR1 whole cell lysate at 12 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ab97051) at 1/100000 dilution

Predicted band size: 94 kDa

Observed band size: 95 kDa

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