abcam

ab232650

Anti-LHFPL5 antibody [EPR16285] - 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	EPR16285
Purification technique	Affinity purification Protein A
Concentration	1.078 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-

Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

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	-

Target data

See full target information LHFPL5

Function	Auxiliary subunit of the mechanotransducer (MET) non-specific cation channel complex located at the tips of the shorter stereocilia of cochlear hair cells and that mediates sensory transduction in the auditory system. The MET complex is

composed of two dimeric pore-forming ion-conducting transmembrane TMC (TMC1 or TMC2) subunits, and aided by several auxiliary proteins including LHFPL5, TMIE, CIB2/3 and TOMT, and the tip-link PCDH15. Functionally couples PCDH15 to the transduction channel.

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

ab232650 is the carrier-free version of ab192242.

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	LHFPL5 also known as TMHS (Tetraspan Membrane Protein of the Hair Cell Stereocilia) functions mechanically as a component of mechanotransduction in hair cells. This protein has an estimated mass of around 25 kDa and is mainly expressed in the inner ear's cochlear and vestibular systems. It resides in the stereocilia of hair cells where it plays an important role in auditory systems through its association with mechanotransduction channels.
Biological function summary	LHFPL5 contributes to auditory transduction by interacting with other proteins in a complex critical for hair cell function. This complex is involved in converting mechanical stimuli into neural signals. LHFPL5 supports the integrity and function of the mechanotransduction channel allowing the inner ear to detect sound and balance changes. The protein acts as a molecular anchor directly influencing the gating of the channel and overall sensory capabilities.
Pathways	LHFPL5 integrates into the auditory mechanotransduction pathway necessary for hearing. It works in conjunction with proteins such as protocadherin 15 (PCDH15) and myosin 7a which are vital for the linking of molecular structures within the stereocilia. These interactions contribute to the pathway's role in enabling the propagation of electrical signals generated from mechanical excitation fundamental to auditory perception.
Associated diseases and disorders	Mutations in LHFPL5 are linked to Usher syndrome which causes deafness and progressive vision loss. Additionally its dysfunction is associated with non-syndromic hearing loss. These conditions often involve abnormal interactions with other implicated proteins such as cadherin 23 (CDH23) highlighting the interconnected nature of LHFPL5 within the structural and functional frameworks essential for normal hearing and balance.

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

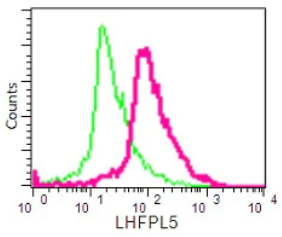
We do not recommend this combination. It is not covered by our product promise.

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.

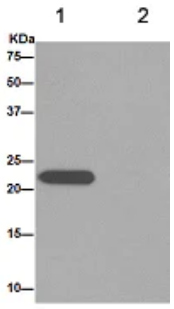
2 product images



Flow Cytometry (Intracellular) - Anti-LHFPL5 antibody [EPR16285] - BSA and Azide free (ab232650)

LHFPL5 Flow Cytometry (Intracellular) staining using rabbit Anti-LHFPL5 antibody

Intracellular flow cytometric analysis of HepG2 (human liver hepatocellular carcinoma cell line) cells (paraformaldehyde-fixed, 2%) labeling LHFPL5with ab192242 at 1/180 dilution (red) or a rabbit IgG (negative) (green), followed by Goat anti rabbit IgG (FITC) secondary 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 (ab192242).



Immunoprecipitation - Anti-LHFPL5 antibody [EPR16285] - BSA and Azide free (ab232650)

Western blot analysis of immunoprecipitation pellet from Human fetal brain lysate immunoprecipitated using ab192242 at 1/60 dilution (lane 1) or PBS control (lane 2). Secondary: Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG at 1/1500 dilution. This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab192242).

All lanes:
Immunoprecipitation - Anti-LHFPL5 antibody [EPR16285] - C-terminal (ab192242)

Predicted band size: 24 kDa

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