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Anti-Erlin-2/ERLIN2 Antibody Picoband™ (monoclonal, 3H9A2)

Catalog # ABO16568

Product Information

Application	WB, IHC, IF, ICC, FC
Primary Accession	O94905
Host	Mouse
Isotype	Mouse IgG2b
Reactivity	Human
Clonality	Monoclonal
Format	Lyophilized
Description	Anti-Erlin-2/ERLIN2 Antibody Picoband™ (monoclonal, 3H9A2) . Tested in Flow Cytometry, IF, IHC, ICC, WB applications. This antibody reacts with Human.
Reconstitution	Adding 0.2 ml of distilled water will yield a concentration of 500 □g/ml.

Additional Information

Gene ID	11160
Other Names	Erlin-2, Endoplasmic reticulum lipid raft-associated protein 2, Stomatin-prohibitin-flotillin-HflC/K domain-containing protein 2, SPFH domain-containing protein 2, ERLIN2, C8orf2, SPFH2
Calculated MW	37840
Application Details	Western blot, 0.25-0.5 □g/ml, Human Immunohistochemistry(Paraffin-embedded Section), 2-5 □g/ml, Human Immunocytochemistry/Immunofluorescence, 5 □g/ml, Human Flow Cytometry, 1-3 □g/1x10^6 cells, Human
Source	Eukaryota
Contents	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na2HPO4.
Clone Names	Clone: 3H9A2
Immunogen	E.coli-derived human Erlin-2/ERLIN2 recombinant protein (Position: D87-N339).
Purification	Immunogen affinity purified.
Storage	At -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freezing and thawing.

Protein Information

Name	ERLIN2
Synonyms	C8orf2, SPFH2
Function	Component of the ERLIN1/ERLIN2 complex which mediates the endoplasmic reticulum-associated degradation (ERAD) of inositol 1,4,5- trisphosphate receptors (IP3Rs) such as ITPR1 (PubMed:17502376, PubMed:19240031). Promotes sterol-accelerated ERAD of HMGCR probably implicating an AMFR/gp78-containing ubiquitin ligase complex (PubMed:21343306). Involved in regulation of cellular cholesterol homeostasis by regulation the SREBP signaling pathway. May promote ER retention of the SCAP-SREBF complex (PubMed:24217618).
Cellular Location	Endoplasmic reticulum membrane; Single-pass type II membrane protein. Note=Associated with lipid raft-like domains of the endoplasmic reticulum membrane
Tissue Location	Ubiquitous..

Background

Erlin-2 is a protein that in humans is encoded by the ERLIN2 gene. This gene encodes a member of the SPFH domain-containing family of lipid raft-associated proteins. The encoded protein is localized to lipid rafts of the endoplasmic reticulum and plays a critical role in inositol 1,4,5-trisphosphate (IP3) signaling by mediating ER-associated degradation of activated IP3 receptors. Mutations in this gene are a cause of spastic paraplegia-18 (SPG18). Alternatively spliced transcript variants encoding multiple isoforms have been observed for this gene.

Images

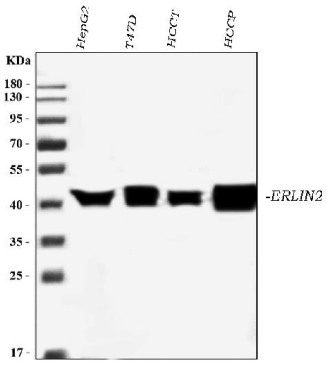


Figure 1. Western blot analysis of ERLIN2 using anti-ERLIN2 antibody (M07042-1).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.
Lane 1: human HepG2 whole cell lysates,
Lane 2: human T47D whole cell lysates,
Lane 3: human HCCT tissue lysates,
Lane 4: human HCCP tissue lysates.
After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with mouse anti-ERLIN2 antigen affinity purified monoclonal antibody (Catalog # M07042-1) at 0.5 µg/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-mouse IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1001) with Tanon 5200 system. A specific band was detected for ERLIN2 at approximately 43 kDa. The expected band size for ERLIN2

is at 38 kDa.

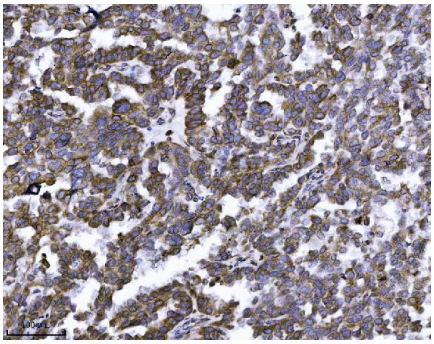


Figure 2. IHC analysis of ERLIN2 using anti-ERLIN2 antibody (M07042-1).
ERLIN2 was detected in a paraffin-embedded section of human ovarian serous carcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 µg/ml mouse anti-ERLIN2 Antibody (M07042-1) overnight at 4°C. Peroxidase Conjugated Goat Anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Mouse IgG Super Vision Assay Kit (Catalog # SV0001) with DAB as the chromogen.

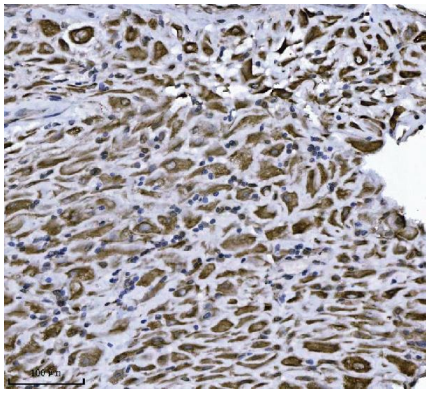


Figure 3. IHC analysis of ERLIN2 using anti-ERLIN2 antibody (M07042-1).
ERLIN2 was detected in a paraffin-embedded section of human placenta tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 µg/ml mouse anti-ERLIN2 Antibody (M07042-1) overnight at 4°C. Peroxidase Conjugated Goat Anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Mouse IgG Super Vision Assay Kit (Catalog # SV0001) with DAB as the chromogen.

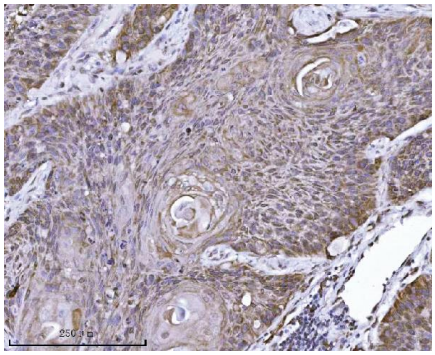


Figure 4. IHC analysis of ERLIN2 using anti-ERLIN2 antibody (M07042-1).
ERLIN2 was detected in a paraffin-embedded section of human squamous cell lung carcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 µg/ml mouse anti-ERLIN2 Antibody (M07042-1) overnight at 4°C. Peroxidase Conjugated Goat Anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Mouse IgG Super Vision Assay Kit (Catalog # SV0001) with DAB as the chromogen.

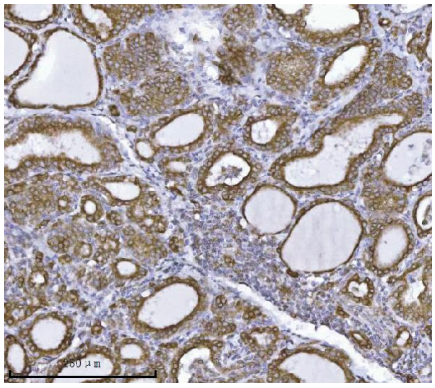


Figure 5. IHC analysis of ERLIN2 using anti-ERLIN2 antibody (M07042-1).
ERLIN2 was detected in a paraffin-embedded section of human thyroiditis tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 µg/ml mouse anti-ERLIN2 Antibody (M07042-1) overnight at 4°C. Peroxidase Conjugated Goat Anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Mouse IgG Super Vision Assay Kit (Catalog # SV0001) with DAB as the chromogen.

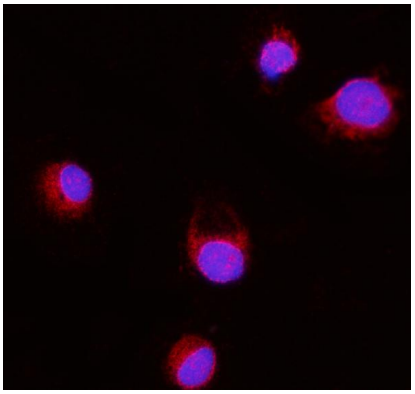


Figure 6. IF analysis of ERLIN2 using anti-ERLIN2 antibody (M07042-1).
ERLIN2 was detected in an immunocytochemical section of T47D cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5 µg/mL mouse anti-ERLIN2 Antibody (M07042-1) overnight at 4°C. Cy3 Conjugated Goat Anti-Mouse IgG (BA1031) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

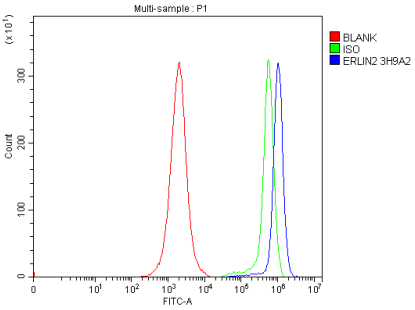


Figure 7. Flow Cytometry analysis of JK cells using anti-ERLIN2 antibody (M07042-1).
Overlay histogram showing JK cells stained with M07042-1 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-ERLIN2 Antibody (M07042-1, 1 µg/1x10^6 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-mouse IgG (BA1126, 5-10 µg/1x10^6 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was mouse IgG (1 µg/1x10^6) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

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