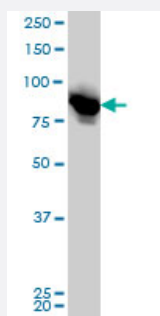


LETM1 monoclonal antibody (M03), clone 6F7

Catalog # H00003954-M03

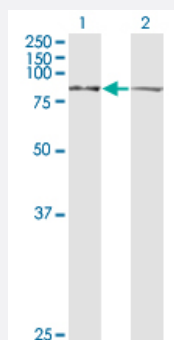
Size 100 ug

Applications



Western Blot (Cell lysate)

LETM1 monoclonal antibody (M03), clone 6F7 Western Blot analysis of LETM1 expression in HeLa (Cat # L013V1).

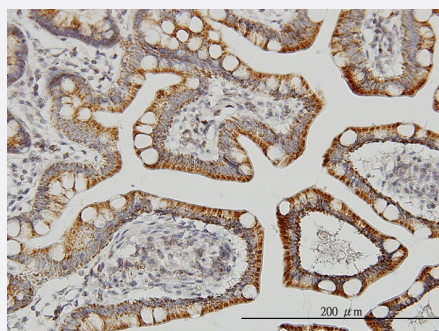


Western Blot (Transfected lysate)

Western Blot analysis of LETM1 expression in transfected 293T cell line by LETM1 monoclonal antibody (M03), clone 6F7.

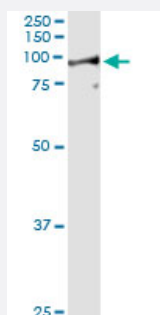
Lane 1: LETM1 transfected lysate(83.4 KDa).

Lane 2: Non-transfected lysate.



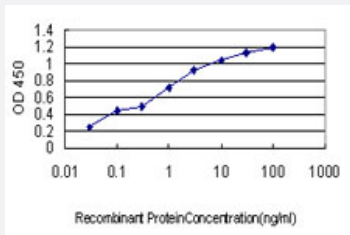
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

Immunoperoxidase of monoclonal antibody to LETM1 on formalin-fixed paraffin-embedded human small Intestine. [antibody concentration 3 ug/ml]



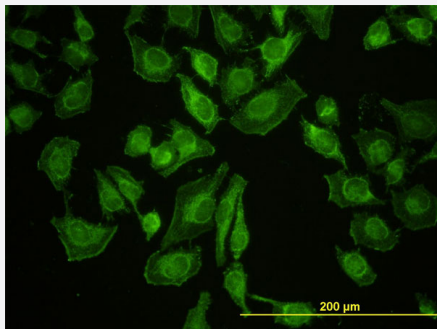
Immunoprecipitation

Immunoprecipitation of LETM1 transfected lysate using anti-LETM1 monoclonal antibody and Protein A Magnetic Bead, and immunoblotted with LETM1 MaxPab rabbit polyclonal antibody.



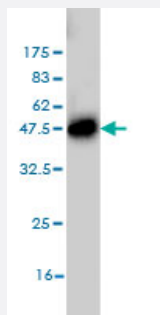
Sandwich ELISA (Recombinant protein)

Detection limit for recombinant GST tagged LETM1 is approximately 0.03ng/ml as a capture antibody.



Immunofluorescence

Immunofluorescence of monoclonal antibody to LETM1 on HeLa cell. [antibody concentration 10 ug/ml]



Western Blot detection against Immunogen (37.62 KDa) .

Specification

Product Description	Mouse monoclonal antibody raised against a partial recombinant LETM1.
Immunogen	LETM1 (NP_036450, 601 a.a. ~ 708 a.a) partial recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.
Sequence	ESKASKRLTKRVQQMIGQIDGLISQLEMDQQAGKLAPANGMPTGENVISVAELINAMKQVKHIPES KLTSLAAALDENKDGKVNIDDLVKVIELVDKEDVHISTSQVA
Host	Mouse
Reactivity	Human
Interspecies Antigen Sequence	Mouse (75); Rat (77)
Isotype	IgG1 Kappa

Quality Control Testing

Antibody Reactive Against Recombinant Protein.
Western Blot detection against Immunogen (37.62 KDa) .

Storage Buffer

In 1x PBS, pH 7.4

Storage Instruction

Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.

Applications

- Western Blot (Cell lysate)

LETM1 monoclonal antibody (M03), clone 6F7 Western Blot analysis of LETM1 expression in HeLa (Cat # L013V1).

[Protocol Download](#)

- Western Blot (Transfected lysate)

Western Blot analysis of LETM1 expression in transfected 293T cell line by LETM1 monoclonal antibody (M03), clone 6F7.

Lane 1: LETM1 transfected lysate(83.4 KDa).

Lane 2: Non-transfected lysate.

[Protocol Download](#)

- Western Blot (Recombinant protein)

[Protocol Download](#)

- Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

Immunoperoxidase of monoclonal antibody to LETM1 on formalin-fixed paraffin-embedded human small Intestine. [antibody concentration 3 ug/ml]

[Protocol Download](#)

- Immunoprecipitation

Immunoprecipitation of LETM1 transfected lysate using anti-LETM1 monoclonal antibody and Protein A Magnetic Bead, and immunoblotted with LETM1 MaxPab rabbit polyclonal antibody.

[Protocol Download](#)

- Sandwich ELISA (Recombinant protein)

Detection limit for recombinant GST tagged LETM1 is approximately 0.03ng/ml as a capture antibody.

[Protocol Download](#)

- ELISA

- Immunofluorescence

Immunofluorescence of monoclonal antibody to LETM1 on HeLa cell. [antibody concentration 10 ug/ml]

Gene Info — LETM1

Entrez GeneID [3954](#)

GeneBank Accession# [NM_012318](#)

Protein Accession# [NP_036450](#)

Gene Name LETM1

Gene Alias -

Gene Description leucine zipper-EF-hand containing transmembrane protein 1

Omim ID [604407](#)

Gene Ontology [Hyperlink](#)

Other Designations -

Publication Reference

- [Emerging role of LETM1/GRP78 axis in lung cancer.](#)

Quangdon Tran, Hyunji Lee, Jae Hun Jung, Seung-Hee Chang, Robin Shrestha, Gyeyeong Kong, Jisoo Park, Seon-Hwan Kim, Kyu-Sang Park, Hyun-Woo Rhee, Jeanho Yun, Myung-Haing Cho, Kwang Pyo Kim, Jongsun Park.

Cell Death & Disease 2022 Jun; 13(6):543.

Application: WB, Human, H460. HeLa cells, lung tissue

- [Mitochondrial LETM1 drives ionic and molecular clock rhythms in circadian pacemaker neurons.](#)

Eri Morioka, Yusuke Kasuga, Yuzuki Kanda, Saki Moritama, Hayato Koizumi, Tomoko Yoshikawa, Nobuhiko Miura, Masaaki Ikeda, Haruhiro Higashida, Todd C Holmes, Masayuki Ikeda.

Cell Reports 2022 May; 39(6):110787.

Application: WB-Ce, Human, hRPE-YC cells

- [The mitochondrial inner membrane protein LETM1 modulates cristae organization through its LETM domain.](#)

Nakamura S, Matsui A, Akabane S, Tamura Y, Hatano A, Miyano Y, Omote H, Kajikawa M, Maenaka K, Moriyama Y, Endo T, Oka T.

Communications Biology 2020 Mar; 3(1):99.

Application: IF, Human, HeLa cells

- [LETM1 is a potential cancer stem-like cell marker and predicts poor prognosis in colorectal adenocarcinoma.](#)

Piao L, Feng Y, Yang Z, Qi W, Li H, Han H, Xuan Y.

Pathology, Research and Practice 2019 Jul; 215(7):152437.

Application: Func, Human, Human plasma

- [Identification of LETM1 as a marker of cancer stem-like cells and predictor of poor prognosis in esophageal squamous cell carcinoma.](#)

Yang Z, Ni W, Cui C, Qi W, Piao L, Xuan Y.

Human Pathology 2018 Nov; 81:148.

Application: IF, IHC, WB-Ce, Human, Esophageal squamous cell carcinoma, TE1, TE8, TE10, TE11, ECG10, HCE7 cells

- [LETM1 overexpression is correlated with the clinical features and survival outcome of breast cancer.](#)

Li N, Zheng Y, Xuan C, Lin Z, Piao L, Liu S.

International Journal of Clinical and Experimental Pathology 2015 Oct; 8(10):12893.

Application: IF, IHC-P, Human, Human breast cancer, MDA-MB-231 cells

- [LETM1-dependent mitochondrial Ca²⁺ flux modulates cellular bioenergetics and proliferation.](#)

Doonan PJ, Chandramoorthy HC, Hoffman NE, Zhang X, Cardenas C, Shanmughapriya S, Rajan S, Vallem S, Chen X, Foskett JK, Cheung JY, Houser SR, Madesh M.

FASEB Journal 2014 Nov; 28(11):4936.

Application: WB-Ce, WB-Tr, Human, HeLa cells, Fibroblasts

- [High Expression of Leucine Zipper-EF-Hand Containing Transmembrane Protein 1 Predicts Poor Prognosis in Head and Neck Squamous Cell Carcinoma.](#)

Chen L, Yang Y, Liu S, Piao L, Zhang Y, Lin Z, Li Z.

BioMed Research International 2014 Feb; 2014:850316.

Application: IHC-P, Human, Head and neck squamous cell carcinoma, Normal squamous epithelia

- [Co-delivery of LETM1 and CTMP synergistically inhibits tumor growth in H-ras12V liver cancer model mice.](#)

Shin JY, Chung YS, Kang B, Jiang HL, Yu DY, Han K, Chae C, Moon JH, Jang G, Cho MH.

Cancer Gene Therapy 2013 Mar; 20(3):186.

Application: WB, Mouse, Liver

- [Association of LETM1 and MRPL36 Contributes to the Regulation of Mitochondrial ATP Production and Necrotic Cell Death.](#)

Piao L, Li Y, Kim SJ, Byun HS, Huang SM, Hwang SK, Yang KJ, Park KA, Won M, Hong J, Hur GM, Seok JH, Shong M, Cho MH, Brazil DP, Hemmings BA, Park J.

Cancer Research 2009 Apr; 69(8):3397.

Application: WB, Human, HeLa cells

- [Regulation of OPA1-mediated mitochondrial fusion by Leucine zipper/EF-hand-containing transmembrane protein-1 plays a role in apoptosis.](#)

Piao L, Li Y, Kim SJ, Sohn KC, Yang KJ, Park KA, Byun HS, Won M, Hong J, Hur GM, Seok JH, Shong M, Sack R, Brazil DP, Hemmings BA, Park J.

Cellular Signalling 2009 May; 21(5):767.

Application: IF, IP, WB-Ce, WB-Tr, Human, HEK 293, HeLa cells

- [LETM1, deleted in Wolf Hirschhorn syndrome is required for normal mitochondrial morphology and cellular viability.](#)

Dimmer KS, Navoni F, Casarin A, Trevisson E, Ende S, Winterpacht A, Salviati L, Scorrano L.

Human Molecular Genetics 2007 Oct; 17(2):201.

Application: WB, Human, Fibroblasts and lymphoblasts from patients with Wolf–Hirschhorn syndrome, HeLa cells