

# Product Datasheet

## LETM1 Antibody (6F7) - Azide and BSA Free H00003954-M03

Unit Size: 0.1 mg

Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.

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**H00003954-M03**

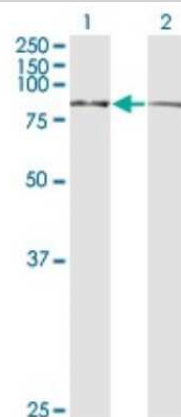
LETM1 Antibody (6F7) - Azide and BSA Free

| <b>Product Information</b>         |  |
|------------------------------------|--|
| <b>Unit Size</b>                   | 0.1 mg   |
| <b>Concentration</b>               | Concentrations vary lot to lot. See vial label for concentration. If unlisted please contact technical services.   |
| <b>Storage</b>                     | Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.   |
| <b>Clonality</b>                   | Monoclonal   |
| <b>Clone</b>                       | 6F7  |
| <b>Preservative</b>                | No Preservative  |
| <b>Isotype</b>                     | IgG1 Kappa   |
| <b>Purity</b>                      | IgG purified   |
| <b>Buffer</b>                      | In 1x PBS, pH 7.4  |
| <b>Product Description</b>         |  |
| <b>Description</b>                 | Quality control test: Antibody Reactive Against Recombinant Protein.   |
| <b>Host</b>                        | Mouse  |
| <b>Gene ID</b>                     | 3954   |
| <b>Gene Symbol</b>                 | LETM1  |
| <b>Species</b>                     | Human, Mouse   |
| <b>Specificity/Sensitivity</b>     | LETM1 - leucine zipper-EF-hand containing transmembrane protein 1  |
| <b>Immunogen</b>                   | LETM1 (NP_036450, 601 a.a. ~ 708 a.a) partial recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.<br>ESKASKRLTKRVQQMIGQIDGLISQLEMDQQAGKLAPANGMPTGENVISVAELI<br>NAMKQVKHIPESKLTSLAAALDENKDGKVNIDDLVKVIELVDKEDVHISTSQVA |
| <b>Notes</b>                       | This product is produced by and distributed for Abnova, a company based in Taiwan.   |
| <b>Product Application Details</b> |  |
| <b>Applications</b>                | Western Blot, ELISA, Functional, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin, Immunoprecipitation   |
| <b>Recommended Dilutions</b>       | Western Blot 1:500, ELISA, Immunohistochemistry, Immunocytochemistry/ Immunofluorescence, Immunoprecipitation, Immunohistochemistry-Paraffin, Functional   |
| <b>Application Notes</b>           | Antibody reactivity against cell lysate and recombinant protein for WB. It has also been used for IF, IHC-P and ELISA.   |

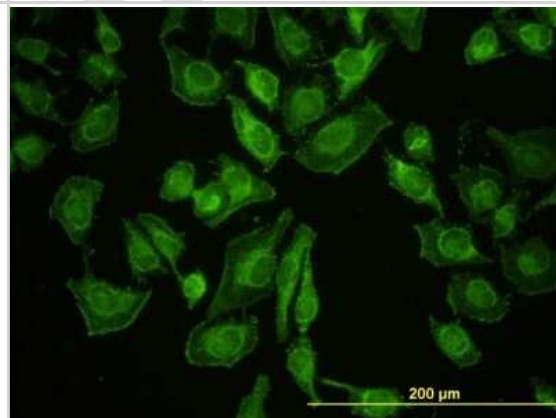


## Images

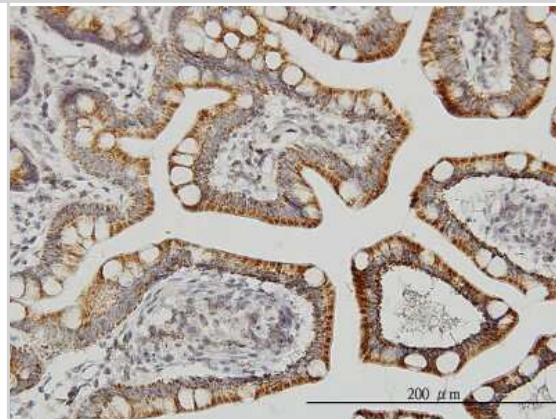
Western Blot: LETM1 Antibody (6F7) [H00003954-M03] - Analysis of LETM1 expression in transfected 293T cell line by LETM1 monoclonal antibody (M03), clone 6F7. Lane 1: LETM1 transfected lysate (83.4 KDa). Lane 2: Non-transfected lysate.



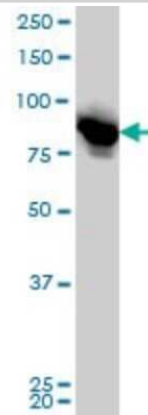
Immunocytochemistry/Immunofluorescence: LETM1 Antibody (6F7) [H00003954-M03] - Analysis of monoclonal antibody to LETM1 on HeLa cell. Antibody concentration 10 ug/ml



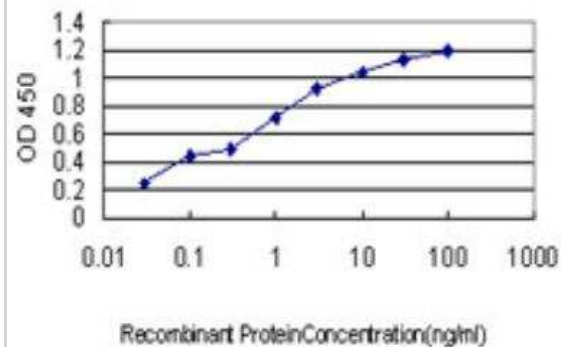
Immunohistochemistry-Paraffin: LETM1 Antibody (6F7) [H00003954-M03] - Analysis of monoclonal antibody to LETM1 on formalin-fixed paraffin-embedded human small Intestine. Antibody concentration 3 ug/ml



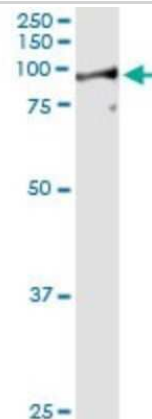
Western Blot: LETM1 Antibody (6F7) [H00003954-M03] - Analysis of LETM1 expression in HeLa (Cat # L013V1).



ELISA: LETM1 Antibody (6F7) [H00003954-M03] - Detection limit for recombinant GST tagged LETM1 is approximately 0.03ng/ml as a capture antibody.



Immunoprecipitation: LETM1 Antibody (6F7) [H00003954-M03] - Analysis of LETM1 transfected lysate using anti-LETM1 monoclonal antibody and Protein A Magnetic Bead, and immunoblotted with LETM1 rabbit polyclonal antibody.



## Publications

Eri M, Yusuke K, Yuzuki K et al. Mitochondrial LETM1 drives ionic and molecular clock rhythms in circadian pacemaker neurons. *Cell Rep.* 2022-05-10 [PMID: 35545046]

Quangdon T, Hyunji L, Jae J et al. Emerging role of LETM1/GRP78 axis in lung cancer. *Cell Death Dis.* 2022-06-10 [PMID: 35680871]

Piao L, Feng Y, Yang Z et al. LETM1 is a potential cancer stem-like cell marker and predicts poor prognosis in colorectal adenocarcinoma. *Pathol Res Pract.* 2019-05-05 [PMID: 31101574]

Nakamura S, Matsui A, Akabane S et al. The mitochondrial inner membrane protein LETM1 modulates cristae organization through its LETM domain. *Commun Biol.* 2020-03-05 [PMID: 32139798]

Li N, Zheng Y, Xuan C et al. LETM1 overexpression is correlated with the clinical features and survival outcome of breast cancer. *Int J Clin Exp Pathol* 2015-10-15 [PMID: 26722481]

Yang Z, Ni W, Cui C et al. Identification of LETM1 as a marker of cancer stem-like cells and predictor of poor prognosis in esophageal squamous cell carcinoma. *Hum Pathol* 2018-07-18 [PMID: 30031102]

Chen L, Yang Y, Liu S et al. High Expression of Leucine Zipper-EF-Hand Containing Transmembrane Protein 1 Predicts Poor Prognosis in Head and Neck Squamous Cell Carcinoma. *BioMed Research International.* 2014-01-01 [PMID: 24689060]

Dimmer KS, Navoni F, Casarin A et al. LETM1, deleted in Wolf Hirschhorn syndrome is required for normal mitochondrial morphology and cellular viability. *Hum Mol Genet.* 2008-01-15 [PMID: 17925330]

Shin JY, Chung YS, Kang B et al. Co-delivery of LETM1 and CTMP synergistically inhibits tumor growth in H-ras12V liver cancer model mice. *Cancer Gene Ther.* 2013-02-08 [PMID: 23392203]

Doonan PJ, Chandramoorthy HC, Hoffman NE et al. LETM1-dependent mitochondrial Ca<sup>2+</sup> flux modulates cellular bioenergetics and proliferation. *FASEB J.* 2014-07-30 [PMID: 25077561]

Piao L, Li Y, Kim SJ et al. Regulation of OPA1-mediated mitochondrial fusion by Leucine zipper/EF-h-containing transmembrane protein-1 plays a role in apoptosis. *Cell Signal* 21(5):767-77. 2009-05-01 [PMID: 19168126]

Piao L, Li Y, Kim SJ et al. Association of LETM1 MRPL36 Contributes to the Regulation of Mitochondrial ATP Production Necrotic Cell Death. *Cancer Res* 69(8):3397-404. 2009-04-15 [PMID: 19318571]





### **Novus Biologicals USA**

10730 E. Briarwood Avenue  
Centennial, CO 80112  
USA  
Phone: 303.730.1950  
Toll Free: 1.888.506.6887  
Fax: 303.730.1966  
nb-customerservice@bio-techne.com

### **Bio-Techne Canada**

21 Canmotor Ave  
Toronto, ON M8Z 4E6  
Canada  
Phone: 905.827.6400  
Toll Free: 855.668.8722  
Fax: 905.827.6402  
canada.inquires@bio-techne.com

### **Bio-Techne Ltd**

19 Barton Lane  
Abingdon Science Park  
Abingdon, OX14 3NB, United Kingdom  
Phone: (44) (0) 1235 529449  
Free Phone: 0800 37 34 15  
Fax: (44) (0) 1235 533420  
info.EMEA@bio-techne.com

### **General Contact Information**

www.novusbio.com  
Technical Support: nb-technical@bio-techne.com  
Orders: nb-customerservice@bio-techne.com  
General: novus@novusbio.com

### **Products Related to H00003954-M03**

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|                  |   |
|------------------|---|
| HAF007           | Goat anti-Mouse IgG Secondary Antibody [HRP]            |
| NB720-B          | Rabbit anti-Mouse IgG (H+L) Secondary Antibody [Biotin] |
| NBP1-43319-0.5mg | Mouse IgG1 Kappa Isotype Control (P3.6.2.8.1)           |
| NBP1-89556PEP    | LETM1 Recombinant Protein Antigen                       |

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### **Limitations**

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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