

## Mouse anti-human TLE-1 Monoclonal Antibody (Clone 1F5)

### REFERENCES AND PRESENTATIONS<sup>1</sup>

- **ready-to-use (ml)**  
MAD-000657QD-3  
MAD-000657QD-7  
MAD-000657QD-12
- **MD-Stainer presentations<sup>2</sup>**  
MAD-000657QD-3/V  
MAD-000657QD/V
- **concentrated**  
MAD-000657Q - 1:20 recommended dilution

### COMPOSITION

Anti-human TLE-1 mouse monoclonal antibody purified from serum and prepared in 10mM PBS, pH 7.4, with 0.2% BSA and 0.09% sodium azide

**INTENDED USE**  Immunohistochemistry (IHC) on paraffin embedded tissues. Not tested on frozen tissues or Western-Blotting

**CLONE:** 1F5

**Ig ISOTYPE:** Mouse IgG2a

**SPECIES REACTIVITY:** In vitro diagnostics in humans. Not tested in other species

**DESCRIPTION AND APPLICATIONS:** Transducin-like enhancer of split 1 (TLE1) gene is a member of the TLE gene family and involved in control of hematopoiesis, neuronal, and terminal epithelial differentiation. By immunohistochemistry in formalin-fixed, paraffin-embedded tissues, TLE1 expression (nuclear staining) has been found in 249 of 259 molecularly confirmed synovial sarcoma cases, and was rare to absent in the 73 other soft tissue tumours examined (positive staining was found only in 1 of 43 malignant peripheral nerve sheath tumors and 1 pleomorphic sarcoma). Anti-TLE1 was more sensitive and specific for synovial sarcoma than other currently available immunohistochemical markers including BCL2, epithelial membrane antigen and cytokeratins, and had a positive predictive value of 92% and a negative predictive value of 100% in this clinical setting. TLE1

overexpression is significantly associated with the t(X;18) translocation.

**IHC POSITIVE CONTROL:** Synovial sarcoma

**VISUALIZATION:** Nuclear

### IHC RECOMMENDED PROCEDURE:

- 4µm thick section should be taken on charged slides; dry overnight at 60°C
- Deparaffinise, rehydrate and HIER (heat induced epitope retrieval) – boil tissue in the Pt Module using Master Diagnóstica EDTA buffer pH8<sup>3</sup> for 20 min at 95°C. Upon completion rinse with 3-5 changes of distilled or deionised water followed by cooling at RT for 20 min
- Endogenous peroxidase block - Blocking for 10 minutes at room temperature using peroxidase solution (ref. MAD-021540Q-125)
- Primary antibody: incubate for 30 minutes [The antibody dilution (when concentrated) and protocol may vary depending on the specimen preparation and specific application. Optimal conditions should be determined by the individual laboratory]
- For detection use Master Polymer Plus Detection System (HRP) (DAB included; ref. MAD-000237QK)
- Counterstaining with haematoxylin and final mounting of the slide

**STORAGE AND STABILITY:**  up to 18 months;  stored at 2-8°C. Do not freeze.

### WARNINGS AND PRECAUTIONS:

1. Avoid contact of reagents with eyes and mucous membranes. If reagents come into contact with sensitive areas, wash with copious amounts of water.
2. This product is harmful if swallowed.
3. Consult local or state authorities with regard to recommended method of disposal.
4. Avoid microbial contamination of reagents.

### SAFETY RECOMMENDATIONS

This product is intended for laboratory professional use only. The product is NOT intended to be used as a drug or for domestic purposes. The current version of the Safety Data Sheet for this product can be downloaded by searching the reference number at [www.vitro.bio](http://www.vitro.bio) or can be requested at [regulatory.md@vitro.bio](mailto:regulatory.md@vitro.bio).

<sup>3</sup> Ref: MAD-004072R/D

<sup>1</sup> These references are for presentation in vials of Low Density Polyethylene (LDPE) dropper. In case the products are used in automated stainers, a special reference is assigned as follows:  
- / L: Cylindrical screw-cap vials (QD-3 / L, QD-7 / L, QD-12 / L).  
- / N: Polygonal screw-cap vials (QD-3 / N, QD-7 / N, QD-12 / N).  
For different presentations (references / volumes) please contact the supplier.

<sup>2</sup> For Technical specifications for MD-Stainer, please contact your distributor.



**BIBLIOGRAPHY**

1. 1. Stifani, S., et al. Human homologs of a *Drosophila* Enhancer of split gene product define a novel family of nuclear proteins. *Nat. Genet.* 2:119-127. 1992.
2. 2. Paroush, Z., et al. Groucho is required for *Drosophila* neurogenesis, segmentation, and sex determination and interacts directly with Hairy-related bHLH Proteins. *Cell* 79: 805-815. 1994.
3. 3. Liu, Y., et al. Epithelial expression and chromosomal location of human TLE genes: implications for Notch signaling and neoplasia. *Genomics* 31: 58-64. 1996.
4. 4. Palaparti, A., et al. The groucho/transducin-like enhancer of split transcriptional repressors interact with the genetically defined aminoterminal silencing domain of Histone H3. *J. Biol. Chem.* 272: 26604-26610. 1997.
5. 5. Levanon, D., et al.. Transcriptional repression by AML1 and LEF-1 is mediated by the TLE/groucho corepressors. *Proc. Natl. Acad. Sci. USA* 95: 11590-11595. 1998.
6. 6. Matsuyama A, Hisaoka M, Iwasaki M, Iwashita M, Hisanaga S, Hashimoto H. TLE1 expression in malignant mesothelioma. *Virchows Arch*; 457(5):577-83. 2010.
7. 7. Knösel T, Heretsch S, Altendorf-Hofmann A, Richter P, Katenkamp K, Katenkamp D, Berndt A, Petersen I. TLE1 is a robust diagnostic biomarker for synovial sarcomas and correlates with t(X;18): analysis of 319 cases. *Eur J Cancer*; 46(6): 1170-6. 2010.
8. 8. Chuang HC, Hsu SC, Huang CG, Hsueh S, Ng KF, Chen TC. Reappraisal of TLE-1 immunohistochemical staining and molecular detection of SS18-SSX fusion transcripts for synovial sarcoma. *Pathol Int.* 2013 Dec;63(12):573-80

