

Datasheet



Mouse mAb to **MFG-E8/
Lactadherin/p47.**
Clone **MFG-06**
Isotype **IgG1-κ**

Source

A BALB/c mouse was immunized with a milk fat globule membrane preparation derived from human breast cancer cell line PMC42. Fusion partner: P3-X63-Ag8.653.

Specifications

MFG-06 reacts with a glycoprotein of 40-45 kDa, known as Milk fat globule-EGF factor 8 protein (MFG-E8), lactadherin, p47 or milk fat globule 1 antigen. It is present on normal epithelial cells in various organs and considered a differentiation marker in carcinomas. It contains one EGF-like domain and 2 F5/8 type C domains. Functioning as a specific ligand for Integrin $\beta 5$ and Integrin $\beta 3$, MFG-E8 is thought to be involved in gamete interactions and cell attachment, possibly playing a role in fertilization and apoptosis. Additionally, MFG-E8 binds to rotavirus and inhibits its replication, thereby protecting the cell from viral infection.

Overexpression of MFG-E8 is associated with breast cancer, suggesting that MFG-E8 may be related to tumorigenesis or progression. Among testicular carcinomas, seminomas are negative.

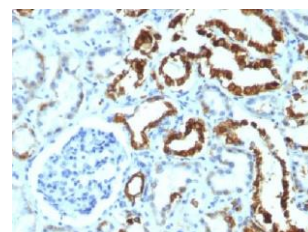


Figure 1: Human kidney stained with MFG-06 (paraffin)

Species reactivity

Positive: human, rat.

Applications

Classification of carcinomas. Distinguish embryonal carcinomas from seminomas.

Flow cytometry	Frozen sections	Immunofluorescence	Paraffin sections	Western blot
+	+	+	Citrate	+

Format

Produced in tissue culture, contains no host Ig. Antibodies are affinity purified and presented in PBS with 0,02 % sodium azide.

Stored at 4°C- 8°C, shelf life is at least 24 months after purchase.

Dilution advice

- Flow cytometry (0,5-1,0 μg /million cells in 0,1 ml).
- Immunoblotting (1-2 μg /ml).
- Immunofluorescence (0,5-1,0 μg /ml).
- Immunohistology (1-2 μg /ml for 30 min at RT; staining of formalin-fixed tissues requires boiling tissue sections in 10mM citrate buffer, pH 6.0, for 10-20 min followed by cooling at RT for 20 minutes).

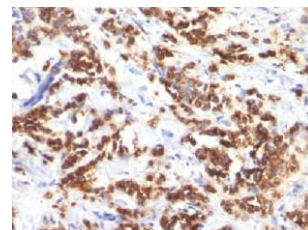


Figure 2: Human breast cancer stained with MFG-06 (paraffin)

Positive control

Normal breast or breast carcinoma.

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References

- Bártková J, et. al. *Tumour Biol.* **8(1)**: 45-56 (1987).
- Yamazaki, M. et al. *Lab. Invest.* **94**: 1260-72 (2014).
- Alfaro-Lira, S. et al. 2012. *Int J Environ Res Public Health.* **9**: 1630-1648 (2012).