

MFG-E8 (G-17): sc-23999

BACKGROUND

Human milk-fat globule (MFG) is abundant in human breast milk and is composed of secreted lipids encapsulated by plasma membranes from the epithelial cells of mammary glands. MFG membranes are composed of various glycoproteins that serve as markers for differentiated carcinomas. MFG-E8 (milk fat globule-EGF factor 8), also known as Lactadherin or BA46, is a 387 amino acid peripheral membrane protein that localizes to the membrane of a variety of tissues, including mammary epithelial surfaces, and 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.

CHROMOSOMAL LOCATION

Genetic locus: MFG-E8 (human) mapping to 15q26.1; Mfge8 (mouse) mapping to 7 D3.

SOURCE

MFG-E8 (G-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of MFG-E8 of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-23999 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

MFG-E8 (G-17) is recommended for detection of precursor and long form of MFG-E8 of human and, to a lesser extent, mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for MFG-E8 siRNA (h): sc-43158, MFG-E8 siRNA (m): sc-43159, MFG-E8 siRNA (r): sc-61893, MFG-E8 shRNA Plasmid (h): sc-43158-SH, MFG-E8 shRNA Plasmid (m): sc-43159-SH, MFG-E8 shRNA Plasmid (r): sc-61893-SH, MFG-E8 shRNA (h) Lentiviral Particles: sc-43158-V, MFG-E8 shRNA (m) Lentiviral Particles: sc-43159-V and MFG-E8 shRNA (r) Lentiviral Particles: sc-61893-V.

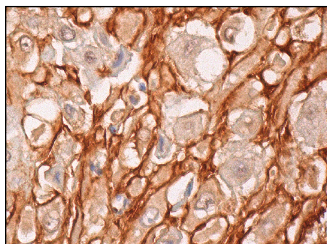
Molecular Weight of MFG-E8: 46 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, MIA PaCa-2 cell lysate: sc-2285 or MCF7 whole cell lysate: sc-2206.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



MFG-E8 (G-17): sc-23999. Immunoperoxidase staining of formalin fixed, paraffin-embedded human placenta tissue showing membrane and cytoplasmic staining of decidual cells.

SELECT PRODUCT CITATIONS

1. Miksa, M., et al. 2007. Fractalkine-induced MFG-E8 leads to enhanced apoptotic cell clearance by macrophages. *Mol. Med.* 13: 553-560.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

MONOS
Satisfaction
Guaranteed

Try **MFG-E8 (MFG-06): sc-8029** or **MFG-E8 (F-5): sc-271574**, our highly recommended monoclonal alternatives to MFG-E8 (G-17).