

MFG-E8 (H-60): sc-33545

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.

SOURCE

MFG-E8 (H-60) is a rabbit polyclonal antibody raised against amino acids 325-384 mapping near the C-terminus 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.

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.

APPLICATIONS

MFG-E8 (H-60) is recommended for detection of MFG-E8 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (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 shRNA Plasmid (h): sc-43158-SH and MFG-E8 shRNA (h) Lentiviral Particles: sc-43158-V.

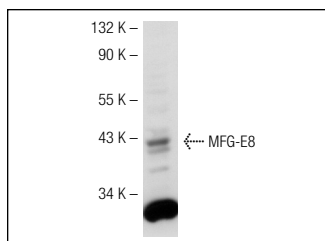
Molecular Weight of MFG-E8: 46 kDa.

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 goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



MFG-E8 (H-60): sc-33545. Western blot analysis of MFG-E8 expression in MCF7 whole cell lysate.

SELECT PRODUCT CITATIONS

1. Sira, M.M., et al. 2009. A novel immunoregulatory protein in human colostrum, syntenin-1, for promoting the development of IgA-producing cells from cord blood B cells. *Int. Immunol.* 21: 1013-1023.
2. Barreto, A., et al. 2010. Membrane vesicles released by intestinal epithelial cells infected with rotavirus inhibit T-cell function. *Viral Immunol.* 23: 595-608.
3. Lin, Y.P., et al. 2010. Comparative proteomic analysis of rat aorta in a subtotal nephrectomy model. *Proteomics* 10: 2429-2443.

RESEARCH USE

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



Try **MFG-E8 (MFG-06): sc-8029** or **MFG-E8 (F-5): sc-271574**, our highly recommended monoclonal alternatives to MFG-E8 (H-60).