

Rabbit anti-Mouse, Rat Milk Fat Globule 1/Mfge8 Polyclonal Antibody | anti-Mfge8 antibody

Anti-Milk Fat Globule 1/Mfge8 Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA125661	Rabbit	Mouse, Rat	ELISA, Flow Cytometry, Functional Assay, Immunohistochemistry, Western Blot

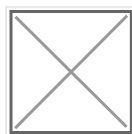
PRODUCT SYNONYMS

Milk Fat Globule 1/Mfge8; Polyclonal Antibody; Anti-Milk Fat Globule 1/Mfge8 Antibody; Mfge8; actadherin; MFGM; Milk fat globule-EGF factor 8; MFG-E8; SED1; Sperm surface protein SP47; MP47; milk fat globule EGF and factor V/VIII domain containing; anti-Mfge8 antibody

PRODUCT SPECIFICATIONS

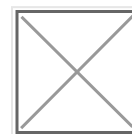
Host	Rabbit
Reactivity	Mouse, Rat
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Rabbit IgG polyclonal antibody for Milk Fat Globule 1/Mfge8 detection.
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized. Each vial contains 4mg Trehalose, 0.9mg NaCl and 0.2mg Na2HPO4.
Applicable Applications for anti-Mfge8 antibody	ELISA (Direct ELISA), FCM/FACS (Flow Cytometry), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	E Coli-derived mouse Milk Fat Globule 1/Mfge8 recombinant protein (Position: A23-C463).
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
Recommended Detection Systems	Recommended Detection Systems
Preparation and Storage	Store at -20 degree C for one year. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for a longer time. Avoid repeated freezing and thawing.

IMAGES



FCM/FACS (Flow Cytometry)

Figure 3. Flow Cytometry analysis of HEPA1-6 cells using anti-Milk Fat Globule 1/Mfge8 antibody (AAA125661). Overlay histogram showing HEPA1-6 cells stained with AAA125661 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-Milk Fat Globule 1/Mfge8 Antibody (AAA125661, 1µg/1x10⁶ cells) for 30 min at 20 degree C. DyLight488 conjugated goat anti-rabbit IgG (5-10µg/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1µg/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



IHC (Immunohistochemistry)

Figure 2. IHC analysis of Milk Fat Globule 1/Mfge8 using anti-Milk Fat Globule 1/Mfge8 antibody (AAA125661). Milk Fat Globule 1/Mfge8 was detected in paraffin-embedded section of mouse kidney tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2µg/ml rabbit anti-Milk Fat Globule 1/Mfge8 Antibody (AAA125661) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



WB (Western Blot)

Figure 1. Western blot analysis of Milk Fat Globule 1/Mfge8 using anti-Milk Fat Globule 1/Mfge8 antibody (AAA125661). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30ug of sample under reducing conditions. Lane 1: rat kidney tissue lysates Lane 2: rat liver tissue lysates Lane 3: mouse NIH/3T3 whole cell lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-Milk Fat Globule 1/Mfge8 antigen affinity purified polyclonal antibody (Catalog # AAA125661) at 0.5 µg/mL overnight at 4 degree C, then washed with TBS-0.1% Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for Milk Fat Globule 1/Mfge8 at approximately 65-70KD. The expected band size for Milk Fat Globule 1/Mfge8 is at 65-70KD.

ADDITIONAL INFORMATION

Related Product Information for anti-Mfge8 antibody	MFGE8(Milk Fat Globule-Egf Factor 8), also called as Lactadherin or SED1, is a protein which in humans is encoded by the MFGE8 gene. Mfge8 is secreted protein found in vertebrates, including mammals as well as birds. By fluorescence in situ hybridization, Collins et al. (1997) mapped the MFGE8 gene to chromosome 15q25. Hanayama et al. (2002) found that MFGE8 is a factor that links apoptotic cells to phagocytes. MFGE8 specifically bound to apoptotic cells by recognizing aminophospholipids such as phosphatidylserine. MFGE8, when engaged by phospholipids, bound to cells via its RGD motif. It bound particularly strongly to cells expressing alpha-V-beta-3 integrin. Bu et al. (2007) showed that Mfge8 was expressed in intestinal lamina propria macrophages in mice. Using a wound-healing assay, they showed that Mfge8 promoted migration of intestinal epithelial cells through a PKC-epsilon(PRKCE)-dependent mechanism.
References	<ol style="list-style-type: none">1. Bu, H. -F., Zuo, X. -L., Wang, X., Ensslin, M. A., Koti, V., Hsueh, W., Raymond, A. S., Shur, B. D., Tan, X. -D. Milk fat globule-EGF factor 8/lactadherin plays a crucial role in maintenance and repair of murine intestinal epithelium. J. Clin. Invest. 117: 3673-3683, 2007.2. Collins, C., Nehlin, J. O., Stubbs, J. D., Kowbel, D., Kuo, W. -L., Parry, G. Mapping of a newly discovered human gene homologous to the apoptosis associated-murine mammary protein, MFG-E8, to chromosome 15q25. Genomics 39: 117-118, 1997.3. Hanayama, R., Tanaka, M., Miwa, K., Shinohara, A., Iwamatsu, A., Nagata, S. Identification of a factor that links apoptotic cells to phagocytes. Nature 417: 182-187, 2002.

NCBI AND UNIPROT INFORMATION

NCBI GI #	341941002
NCBI GeneID	17304
UniProt Accession #	P21956 ; P97800 ; Q3TBN5 ; Q3U8S9 ; Q9R1X9 ; Q9WTS3
Molecular Weight	47,169 Da
NCBI Official Full Name	Lactadherin
NCBI Official Synonym Full Names	milk fat globule-EGF factor 8 protein
NCBI Official Symbol	Mfge8
NCBI Official Synonym Symbols	P47; MP47; Mfgm; SED1; MFG-E8; AA408458; AI325141; lactadherin
NCBI Protein Information	lactadherin; EGF/factor VIII; sperm surface protein SP47; milk fat globule glycoprotein
UniProt Protein Name	Lactadherin
UniProt Gene Name	Mfge8
UniProt Synonym Gene Names	MFG-E8; MP47

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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