

Mouse CD107b Monoclonal Antibody | anti-CD107b antibody

Mouse Anti Dog CD107b

CATALOG # AAA12260	HOST Mouse	APPLICATIONS Flow Cytometry, Functional Assay, Immunofluorescence, Immunoprecipitation, Western Blot
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PRODUCT SYNONYMS

CD107b; Monoclonal Antibody; Mouse Anti Dog CD107b; CD107b antibody (AC17); LAMP-2; anti-CD107b antibody

PRODUCT SPECIFICATIONS

Host	Mouse
Clonality	Monoclonal
Isotype	IgG1
Clone Number	AC17
Specificity	CD107b
Purity/Purification	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant
Form/Format	Liquid; Phosphate Buffered Saline
Concentration	Approx. Protein Concentrations: IgG concentration 1.0 mg/ml (varies by lot)
Applicable Applications for anti-CD107b antibody	FCM/FACS (Flow Cytometry), IF (Immunofluorescence), IP (Immunoprecipitation), WB (Western Blot)
Application Notes	FC: 1/50-1/200 WB: 1/100-1/500 Flow Cytometry: Use 10ul of the suggested working dilution to label 1×10^6 cells in 100ul. Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls. (1) Membrane permeabilisation is required for this application. We recommend the use of Leucoperm
Immunogen	MDCK (Madin-Darby Canine Kidney) cells
Target Species	Dog
Species Cross Reactivity	Reacts with: Mink, Human Does not react with: Mouse, Rat N.B. Antibody reactivity and working conditions may vary between species. Crossreactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.
Fusion Partners	Spleen cells from immunised Balb/c mice were fused with cells of the NS1 myeloma cell line.
Preservative Stabilizers	0.09% Sodium Azide (NaN ₃)
Preparation and Storage	This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2°C to 8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C. Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.



Application Data

Peripheral dog granulocytes stained with Mouse anti Dog CD107b following permeabilization with Leucoperm (BUF09). Goat anti Mouse IgG (H/L):FITC used as secondary antibody.



Application Data

Peripheral dog granulocytes stained with Mouse anti Dog CD107b:RPE following permeabilisation with Leucoperm (BUF09).

ADDITIONAL INFORMATION

Related Product Information for anti-CD107b antibody

Mouse anti Dog CD107b antibody, clone AC17 recognizes canine CD107b, otherwise known as lysosome-associated membrane protein 2 or LAMP-2. Immunofluorescence staining of MDCK cells with mouse anti dog CD107b, clone AC17 demonstrates staining patterns consistent with localization to lysosomes. This is supported by coincident staining of an exogenous lysosomal glycoprotein, avian LEP100 transfected into MDCK cells and detected using the anti LEP100 antibody clone CV24 (Nabi et al.1991).

Mouse anti Dog CD107b antibody, clone AC17 immunoprecipitates a protein of ~95 kDa in MDCK cells which, following Endo F digestion to remove N-linked oligosaccharides, yields a core protein product of 40 kDa, indicating the heavily glycosylated nature of CD107b. The molecular weight of canine CD107b is typical of many lysosome-associated membrane proteins. While most (97%) CD107b resides in the lysosomal environment in adherent MDCK cells in vitro, early studies (Nabi et al.1991) indicated that a small percentage of total cellular CD107b, as revealed by radioimmune assay with clone AC17, is found associated with the cell membrane.

Lysosomes are membrane-bound organelles found within the cytoplasm of most cells, they contain hydrolytic enzymes and act as the major compartment for heterophagic and autophagic digestion. Members of the lysosomal-associated membrane protein family (LAMPs) are believed to play an important role in protecting the lysosomal membrane from protease degradation and are involved in lectin-mediated cell adhesion. CD107b has been shown to share high N-terminal amino acid sequence homology with human, mouse and rat CD107b (Nabi et al.1993). Transfection of a mink type II lung epithelial cell line with beta1-6-N-acetylglucosaminyl transferase V demonstrates the formation of large lysosomal vacuoles, termed multilamellar bodies (MLBs), having a very distinct phenotype with expression of CD107b, as indicated by immunofluorescent staining with clone AC17. These MLBs require lysosomal degradation via an autophagic pathway for their formation and may have implications for lysosomal storage diseases (Hariri et al.2000). Evidence shows that CD107b is involved in the lysosomal uptake of cytosolic proteins and the endocytic pathway. Human studies have revealed a correlation between the level of surface expression of CD107b on tumor cells and their metastatic potential (Saitoh et al. 1992).

Mouse anti Dog CD107b antibody, clone AC17 has been shown as suitable for use in electron microscopy (Nabi et al.1991).

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.