CD16 monoclonal antibody

Catalog: MB65899 Host: Mouse Reactivity: Human

BackGround:

CD64 (FcgammaRI), CD32 (FcgammaRII), and CD16 (FcgammaRIII) are three classes of the immunoglobulin superfamily. CD64 has a high affinity for IgG with three Ig-like domains while CD32 and CD16 have low affinities with two Ig-like domains. Two genes encode CD16-A and CD16-B resulting only in a 6 amino acid difference in their ectodomains. However, CD16-A has a transmembrane anchor versus CD16-B, which has a glycosylphosphatidylinositol. CD64, CD32, and CD16 are membrane glycoproteins that are expressed by all immunologically active cells and trigger various immune functions (activate B cells, phagocytosis, antibody-dependent cellular cytotoxicity, immune complex clearance, and enhancement of antigen presentation). CD16 cross-linking induces tyrosine phosphorylation (Tyr394) of Lck in NK cells. CD32 has tyrosine-based activation motifs in the cytoplasmic domain in contrast to CD16, which associates with molecules possessing these motifs.

CD16A is expressed by NK cells, macrophages, and a subset of monocytes, while CD16B is expressed by neutrophils. CD16 is commonly used in combination with CD56 to characterize NK cells, with CD16 identifying NK cells capable of cytotoxicity.

Product:

Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.

Molecular Weight:

~ 45 kDa

Swiss-Prot:

P08637; O75015

Purification&Purity:

The antibody was affinity-purified from mouse antiserum by affinity-chromatography using epitope-specific immunogen and the purity is > 95% (by SDS-PAGE).

Applications:

WB (1/1000 - 1/2000), IHC (1/100 - 1/200)

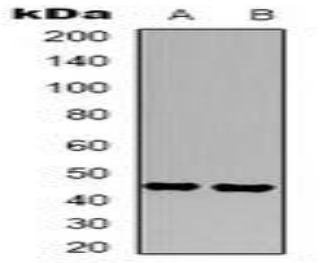
Storage&Stability:

Store at 4℃ short term. Aliquot and store at -20℃ long term. Avoid freeze-thaw cycles.

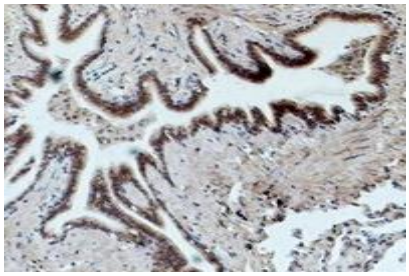
Specificity:

Recognizes endogenous levels of CD16 protein.

DATA:



Western blot analysis of CD16 expression in Jurkat (A), K562 (B) whole cell lysates.



Immunohistochemical analysis of CD16 staining in human lung cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

Note:

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

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