Revision 6

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CD16 (2H7) Mouse mAb

Cell Signaling TECHNOLOGY®

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Applications:	Reactivity:	Sensitivity:	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
IHC-Bond, IHC-P	H	Endogenous	Mouse IgG2a	#P08637	2214

Product Usage Information

Application	Dilution
IHC Leica Bond	1:200 - 1:800
Immunohistochemistry (Paraffin)	1:200 - 1:800

Storage

Supplied as liquid tissue culture supernatant containing sodium azide as a preservative. Stable for 6 months when stored at 4°C. *Do not aliquot the antibody.*

Specificity / Sensitivity

CD16 (2H7) Mouse mAb recognizes endogenous levels of CD16 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a prokaryotic recombinant protein corresponding to the external domain of CD16 protein, common to both the transmembrane form and the GPI-linked form.

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 (1). 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) (2). CD16 cross-linking induces tyrosine phosphorylation (Tyr394) of Lck in NK cells (3). CD32 has tyrosine-based activation motifs in the cytoplasmic domain in contrast to CD16, which associates with molecules possessing these motifs (1).

Background References

1. Maenaka, K. et al. (2001) *J. Biol. Chem.* 276, 44898-44904.
2. Fridman, W. H. et al. (1992) *Immunol. Rev.* 125, 49-76.
3. Pignata, C. et al. (1993) *J. Immunol.* 151, 6794-6800.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Applications Key

IHC-Bond: IHC Leica Bond **IHC-P:** Immunohistochemistry (Paraffin)

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster **X:** Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse **GP:** Guinea Pig **Rab:** rabbit **All:** all species expected

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