Anti-CD64 [H22] Standard Size Ab00731-10.3

This antibody was created using our proprietary Fc Silent™ engineered Fc domain containing key point mutations that abrogate binding to Fc gamma receptors.

This chimeric human antibody was made using the variable domain sequences of the original IgG1 format, for improved compatibility with existing reagents, assays and techniques.

Isotype and Format: Human IgG1, Fc Silent™, Kappa
Clone Number: H22
Alternative Name(s) of Target: FcγRI; High affinity immunoglobulin gamma Fc receptor I; IgG Fc receptor I; Fc-gamma RI; FcRI; Fc-gamma RIA
UniProt Accession Number of Target Protein: P12314
Published Application(s): competition studies, toxicity assays, ELISA, FC
Published Species Reactivity: Human
Immunogen: This recombinant antibody was prepared by cloning the single chain fragment (scFv) derived from the murine anti-human CD64 mAb m22 into the bacterial expression vector pBM1.1, and fusing it to a deletion mutant of Pseudomonas exotoxin A (ETA'□□).
Specificity: This immunotoxin is specific for human CD64, and specifically an epitope outside the Fc binding domain. The binding activity of the VH/VL antibody format was unaffected by fusion of the m22(scFv) coding regions to the truncated ETA coding sequences
Application Notes: This antibody binds human CD64 and can be bound to a toxin so that together it displays specific cytotoxicity, and thus can be used to selectively eliminate AML cells; FC analysis indicated that this immunotoxin drove 41% of primary leukemia cells from a patient with CD64-positive AML into early apoptosis (Tur, 2003). Similarly, in an in vivo mouse model, IHC analysis revealed efficient elimination of human CD64+ tumor cells in mouse organs (Tur, 2011).
Antibody First Published in: Guyre et al., Tur et al. Monoclonal antibodies that bind to distinct epitopes on Fc gamma RI are able to trigger receptor function & Recombinant CD64-Specific Single Chain Immunotoxin Exhibits Specific Cytotoxicity against Acute Myeloid Leukemia Cells Journal of immunology, 1 September 1989, Vol.143(5), pp.1650-5 & CANCER RESEARCH 63, 8414 – 8419, December 1, 2003 PMID:14679004
Note on publication: Guyre et al (1989) describes the original use of murine m22 in FC, IP and staining studies and cytotoxicity and cross-blocking analysis to characterise the FcγRI epitopes, and showed that this antibody is able to trigger cytotoxicity. Tur et al (2003) describes the original construction of the

recombinant anti-CD64 immunotoxin, and demonstrates its ability to target CD64+ acute myeloid leukaemia cells

Product Form

Size: 200 µg Purified antibody.
Purification: Protein A affinity purified
Supplied In: PBS with 0.02% Proclin 300.
Storage Recommendation: Store at 4^{o}C for up to 3 months. For longer storage, aliquot and store at -20^{o}C.
Concentration: 1 mg/ml.

Important note – This product is for research use only. It is not intended for use in therapeutic or diagnostic procedures for humans or animals.