

CD64 (E-20): sc-31218

BACKGROUND

Three different classes of IgG Fc receptors have been described: FcγRI (CD64), FcγRII (CD32) and FcγRIII (CD16). The low affinity receptors, FcγRII and FcγRIII, have a putative role in mediating humoral immune responses. FcγRI is a 70 kDa cell surface glycoprotein with high affinity for monomeric IgG, is expressed constitutively on monocytes and macrophages and can be induced in neutrophils subsequent to IFN-γ stimulation. FcγRI plays a putative role in the initiation of cell-mediated cytotoxicity. Thus far, three genes encoding four distinct FcγRI transcripts have been described. FcγRI has been shown to associate with signal transducing subunit of the high affinity IgE receptor. Src family kinases Hck and Lyn show increased kinase activity and will co-immunoprecipitate with FcγRI subsequent to receptor cross linking.

REFERENCES

1. Porges, A.J., et al. 1992. Novel Fcγ receptor I family gene products in human mononuclear cells. *J. Clin. Invest.* 90: 2102-2109.
2. Valerius, T., et al. 1993. Involvement of the high-affinity receptor for IgG (FcγRI; CD64) in enhanced tumor cell cytotoxicity of neutrophils during granulocyte colony-stimulating factor therapy. *Blood* 82: 931-939.

SOURCE

CD64 (E-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an N-terminal extracellular domain of CD64 of mouse origin.

PRODUCT

Each vial contains 200 μg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-31218 P, (100 μg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CD64 (E-20) is recommended for detection of CD64 of mouse, rat and, to a lesser extent, human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μg per 100-500 μg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); may cross-react with CD16.

CD64 (E-20) is also recommended for detection of CD64 in additional species, including canine and porcine.

Suitable for use as control antibody for CD64 siRNA (m): sc-35018, CD64 siRNA (h): sc-35017, CD64 shRNA Plasmid (m): sc-35018-SH, CD64 shRNA Plasmid (h): sc-35017-SH, CD64 shRNA (m) Lentiviral Particles: sc-35018-V and CD64 shRNA (h) Lentiviral Particles: sc-35017-V.

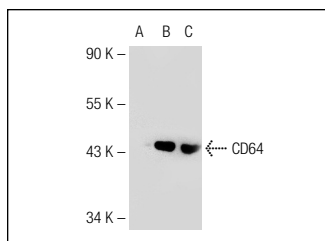
Molecular Weight of CD64: 43 kDa.

Positive Controls: CD64 (h3): 293 Lysate: sc-175234, RAW 264.7 whole cell lysate: sc-2211 or HL-60 whole cell lysate: sc-2209.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



CD64 (E-20): sc-31218. Western blot analysis of CD64 expression in non-transfected 293: sc-110760 (A), human CD64 transfected 293: sc-175234 (B) and RAW 264.7 (C) whole cell lysates.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

MONOS
Satisfaction
Guaranteed

Try **CD64 (C-6): sc-515431**, our highly recommended monoclonal alternative to CD64 (E-20). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **CD64 (C-6): sc-515431**.