

CD64 (N-19): sc-7642

BACKGROUND

Three different classes of IgG Fc receptors have been described: FcγRI (CD64), FcγRII (CD32) and FcγRIII (CD16). The low affinity receptors, CD64 and CD16, have a putative role in mediating humoral immune responses. CD64 is a 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. CD64 plays a putative role in the initiation of cell-mediated cytotoxicity. Thus far, three genes encoding four distinct CD64 transcripts have been described. CD64 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 CD64 subsequent to receptor cross linking.

CHROMOSOMAL LOCATION

Genetic locus: FCGR1A (human) mapping to 1q21.2, FCGR1B (human) mapping to 1p11.2; Fcgr1 (mouse) mapping to 3 F2.1.

SOURCE

CD64 (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of CD64 of human 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-7642 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CD64 (N-19) is recommended for detection of CD64 of mouse, rat and 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).

CD64 (N-19) is also recommended for detection of CD64 in additional species, including canine and porcine.

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

Molecular Weight of CD64: 43 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209, RAW 264.7 whole cell lysate: sc-2211 or human PBL whole cell lysate.

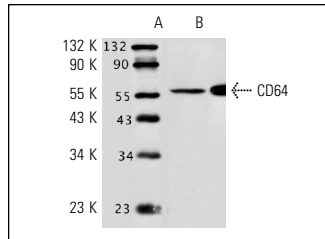
STORAGE

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.

DATA



CD64 (N-19): sc-7642. Western blot analysis of CD64 expression in HL-60 (A) and RAW 264.7 (B) whole cell lysates.

SELECT PRODUCT CITATIONS

- Wojciechowski, W., et al. 1999. Attenuation of MHC class II expression in macrophages infected with *Mycobacterium bovis* bacillus Calmette-Guérin involves class II transactivator and depends on the Nramp 1 gene. *J. Immunol.* 163: 2688-2696.
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- Bare, P., et al. 2005. Continuous release of hepatitis C virus (HCV) by peripheral blood mononuclear cells and B-lymphoblastoid cell-line cultures derived from HCV-infected patients. *J. Gen. Virol.* 86: 1717-1727.
- Qu, L., et al. 2011. Neuronal Fcγ receptor I mediated excitatory effects of IgG immune complex on rat dorsal root ganglion neurons. *Brain Behav. Immun.* 25: 1399-1407.
- Haasken, S., et al. 2011. Absence of β2 integrins impairs regulatory T cells and exacerbates CD4+ T cell-dependent autoimmune carditis. *J. Immunol.* 187: 2702-2710.

PROTOCOLS

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