

CD64 (H-250): sc-15364

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; Fcgr1 (mouse) mapping to 3 F2.1.

SOURCE

CD64 (H-250) is a rabbit polyclonal antibody raised against amino acids 125-374 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.

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.

APPLICATIONS

CD64 (H-250) 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).

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.

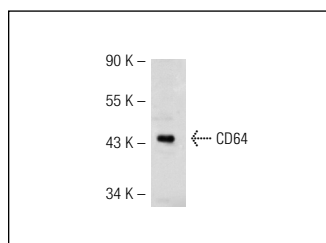
Molecular Weight of CD64: 43 kDa.

Positive Controls: CD64 (h): 293T Lysate: sc-115162, RAW 264.7 whole cell lysate: sc-2211 or HL-60 whole cell lysate: sc-2209.

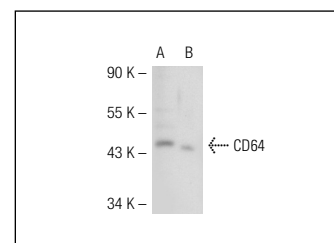
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



CD64 (H-250): sc-15364. Western blot analysis of CD64 expression in RAW 264.7 whole cell lysate.



CD64 (H-250): sc-15364. Western blot analysis of CD64 expression in non-transfected: sc-117752 (A) and human CD64 transfected: sc-115162 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

- Magness, S.T., et al. 2004. *In vivo* pattern of lipopolysaccharide and anti-CD3-induced NFκB activation using a novel gene-targeted enhanced GFP reporter gene mouse. *J. Immunol.* 173: 1561-1570.
- Allen, C., et al. 2006. Retargeted oncolytic measles strains entering via the EGFRvIII receptor maintain significant antitumor activity against gliomas with increased tumor specificity. *Cancer Res.* 66: 11840-11850.
- Mahmood, A., et al. 2011. Treatment of TBI with collagen scaffolds and human marrow stromal cells increases the expression of tissue plasminogen activator. *J. Neurotrauma* 28: 1199-1207.
- Sundgren, N.C., et al. 2011. Coupling of Fcγ receptor I to Fcγ receptor IIb by SRC kinase mediates C-reactive protein impairment of endothelial function. *Circ. Res.* 109: 1132-1140.



Try **CD64 (10.1): sc-1184** or **CD64 (C-6): sc-515431**, our highly recommended monoclonal alternatives to CD64 (H-250). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **CD64 (10.1): sc-1184**.