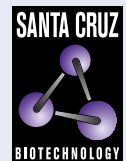


CD14 (BA-8): sc-7328



The Power to Question

BACKGROUND

Lipopolysaccharide (LPS) elicits the secretion of mediators and cytokines produced by activated macrophages and monocytes. CD14 is a glycosylphosphatidylinositol (GPI)-anchored protein found on the surfaces of monocytes and polymorphonuclear leukocytes. CD14 functions as a receptor for LPS, resulting in the secretion of various proteins. An important component in the LPS activation of monocytes through the CD14 receptor is the "adapter molecule" lipopolysaccharide binding protein (LBP). There are two forms of CD14, a membrane-associated form (mCD14), and a soluble form (sCD14). mCD14 responds to LPS alone and facilitates the secretion of proteins, while cells not expressing mCD14 fail to respond to LPS. The cells that lack mCD14 respond to LPS/LBP in the presence of sCD14.

REFERENCES

1. Simmons, D.L., et al. 1989. Monocyte antigen CD14 is a phospholipid anchored membrane protein. *Blood* 73: 284-289.
2. Schumann, R.R. 1992. Function of lipopolysaccharide (LPS)-binding protein (LBP) and CD14, the receptor for LPS/LBP complexes: a short review. *Res. Immunol.* 143: 11-15.
3. Kielan, T.L. and Blecha, F. 1995. CD14 and other recognition molecules for lipopolysaccharide: a review. *Immunopharmacology* 29: 187-205.

CHROMOSOMAL LOCATION

Genetic locus: CD14 (human) mapping to 5q31.3.

SOURCE

CD14 (BA-8) is a mouse monoclonal antibody raised against human monocytes.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CD14 (BA-8) is available conjugated to either phycoerythrin (sc-7328 PE) or fluorescein (sc-7328 FITC), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM.

APPLICATIONS

CD14 (BA-8) is recommended for detection of CD14 of human origin by flow cytometry (1 µg per 1 x 10⁶ cells).

Suitable for use as control antibody for CD14 siRNA (h): sc-29248, CD14 shRNA Plasmid (h): sc-29248-SH and CD14 shRNA (h) Lentiviral Particles: sc-29248-V.

Molecular Weight of CD14: 53-55 kDa.

Positive Controls: BJAB whole cell lysate: sc-2207, THP-1 cell lysate: sc-2238 or CCRF-CEM cell lysate: sc-2225.

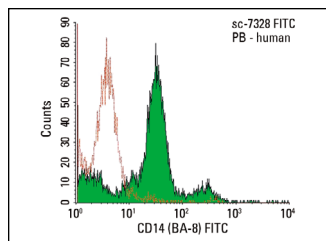
STORAGE

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



CD14 (BA-8) FITC: sc-7328 FITC. FCM analysis of human peripheral blood leukocytes. Black line histogram represents the isotype control, normal mouse IgG₁-FITC: sc-2855.

SELECT PRODUCT CITATIONS

1. Hmama, Z., et al. 1999. 1 α ,25-dihydroxy vitamin D₃-induced myeloid cell differentiation is regulated by a vitamin D receptor-phosphatidylinositol 3-kinase signaling complex. *J. Exp. Med.* 190: 1583-1594.
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3. Yalvaç, M.E., et al. 2010. Human tooth germ stem cells preserve neuro-protective effects after long-term cryo-preservation. *Curr. Neurovasc. Res.* 7: 49-58.
4. Yalvaç, M.E., et al. 2011. Differentiation and neuro-protective properties of immortalized human tooth germ stem cells. *Neurochem. Res.* 36: 2227-2235.
5. He, W., et al. 2012. Attenuation of TNFSF10/TRAIL-induced apoptosis by an autophagic survival pathway involving TRAF2- and RIPK1/RIP1-mediated MAPK8/JNK activation. *Autophagy* 8: 1811-1821.
6. Tasli, P.N., et al. 2013. Effect of F68, F127, and P85 pluronic block copolymers on odontogenic differentiation of human tooth germ stem cells. *J. Endod.* 39: 1265-1271.
7. He, W., et al. 2014. A JNK-mediated autophagy pathway that triggers c-IAP degradation and necroptosis for anticancer chemotherapy. *Oncogene* 33: 3004-3013.
8. Dogan, A., et al. 2015. *In vitro* differentiation of human tooth germ stem cells into endothelial- and epithelial-like cells. *Cell Biol. Int.* 39: 94-103.



See **CD14 (5A3B11B5): sc-58951** for CD14 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.