TECHNICAL DATA SHEET

Recombinant Human sCD14 (Carrier-free)

Catalog Number: 21-7173

RPx-Pro™ Recombinant Protein

PRODUCT INFORMATION

CONTENTS

Recombinant Human sCD14 (Carrier-free)

DESCRIPTION

CD14, expressed mainly by monocytes and macrophages, is generally present as a membrane-bound surface glycoprotein. It serves as a homing receptor for lipopolysaccharide (LPS) and is a pattern recognition receptor for a variety of microbial-derived ligands. CD14 is not a signaling protein and forms a receptor complex with toll-like receptor 4 (TLR4) to transduce CD14-LPS signals. CD14 is also present as a soluble format in serum and other bodily fluids (sCD14). This soluble format can be shed from the cell surface and may play a role in inhibiting LPS-mediated responses in extracellular spaces.

MOLECULAR MASS

Recombinant Human sCD14 is a 35.6 kDa protein comprising 331 amino acids of the extracellular portion of the CD14 receptor.

AMINO ACID SEQUENCE

TTPEPCELDD EDFRCVCNFS EPQPDWSEAF QCVSAVEVEI HAGGLNLEPF LKRVDADADP RQYADTVKAL RVRRLTVGAA QVPAQLLVGA LRVLAYSRLK ELTLEDLKIT GTMPPLPLEA TGLALSSLRL RNVSWATGRS WLAELQQWLK PGLKVLSIAQ AHSPAFSCEQ VRAFPALTSL DLSDNPGLGE RGLMAALCPH KFPAIQNLAL RNTGMETPTG VCAALAAAGV QPHSLDLSHN SLRATVNPSA PRCMWSSALN SLNLSFAGLE QVPKGLPAKL RVLDLSCNRL NRAPQPDELP EVDNLTLDGN PFLVPGTALP HEGSMNSGVV P

SOURCE	APPLICATIONS	PURITY	STORAGE
HEK293 cells	Bioassay	95 %	-20°C

PROTEIN CONTENT

Content Verified by UV Spectroscopy and/or SDS-PAGE gel.

ENDOTOXIN LEVEL

Endotoxin level is <0.1 ng/µg of protein (<1 EU/µg).

AUTHENTICITY

Verified by N-terminal and Mass Spectrometry analyses (when applicable).

CROSS REACTIVITY

Mouse

BIOACTIVITY

Using a concentration range of 20 - 200 ng/ul, dose dependent activation of NF-kB in a RAW264 cell line based reporter system is measured. In the presence of 0.25 - 1.0 ng/ul of bacterial LPS enhances the activation assay.

RESEARCH AREAS

Receptors, Inflammation

RECONSTITUTION

See Certificate of Analysis (COA) for lot specific reconstitution information.

REFERENCES

Wright SD, Ramos RA, Tobias PS, Ulevitch RJ and Mathison JC. 1990. Science. 249(4975): 1431-1433. Zanoni I, Ostuni R, Marek LR, Barresi S, Barbalat R, Barton GM, Granucci F and Kagan JC. 2011. Cell. 147(4): 868-880. Jersmann. 2005. Immunol Cell Biol. 83(5): 462-467. Pugin J, Schurer-Maly CC, Leturcq D, Moriarty A, Ulevitch RJ and Tobias PS. 1993. Proc Natl Acad Sci USA. 90(7): 2744-2748. Stelter F. 2000. Chem Immunol. 74: 25-41.