DESCRIPTION

Species Reactivity
Human

Specificity
Detects human CD14 in ELISAs and Western blots. In sandwich ELISAs, less than 0.2% cross-reactivity with recombinant mouse CD14 and Lipopolysaccharide is observed.

Source
Polyclonal Sheep IgG

Purification
Antigen Affinity-purified

Immunogen
Chinese hamster ovary cell line CHO-derived recombinant human CD14 Thr20-Cys352
Accession # P08571

Formulation
Lyophilized from a 0.2 μm filtered solution in PBS with BSA as a carrier protein. See Certificate of Analysis for details.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

Recommended Concentration

<table>
<thead>
<tr>
<th>Sample</th>
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<tbody>
<tr>
<td>Western Blot</td>
<td>0.1 μg/mL</td>
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<tr>
<td>Immunohistochemistry</td>
<td>5-15 μg/mL</td>
</tr>
<tr>
<td>Human CD14 Sandwich Immunoassay: ELISA Capture</td>
<td>2-8 μg/mL</td>
</tr>
<tr>
<td>Human CD14 Sandwich Immunoassay: ELISA Detection</td>
<td>0.1-0.4 μg/mL</td>
</tr>
<tr>
<td>Human CD14 Sandwich Immunoassay: Standard</td>
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</tbody>
</table>

CD14 in Human Lymph Node.
CD14 was detected in immersion fixed paraffin-embedded sections of human lymph node using 10 μg/ml Sheep Anti-Human CD14 Biotinylated Antibody (Catalog # BAF383) overnight at 4 °C. Tissue was stained with the Anti-Sheep HRP-AEC Cell & Tissue Staining Kit (red; Catalog # CTS020) and counterstained with hematoxylin (blue). View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.

DATA

Immunohistochemistry

DATA

PREPARATION AND STORAGE

Reconstitution
Reconstitute at 0.2 mg/mL in sterile PBS.

Shipping
The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage
Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

CD14 is a 55 kDa cell surface glycoprotein that is preferentially expressed on monocytes/macrophages. The human CD14 cDNA encodes a 375 amino acid (aa) residue precursor protein with a 19 aa signal peptide and a C-terminal hydrophobic region characteristic for glycosylphosphatidylinositol (GPI)-anchored proteins. Human CD14 has four potential N-linked glycosylation sites and also bears O-linked carbohydrates. The amino acid sequence of human CD14 is approximately 65% identical with the mouse, rat, rabbit, and bovine proteins. CD14 is a pattern recognition receptor that binds lipopolysaccharides (LPS) and a variety of ligands derived from different microbial sources. The binding of CD14 with LPS is catalyzed by LPS-binding protein (LBP). The toll-like-receptors have also been implicated in the transduction of CD14-LPS signals. Similar to other GPI-anchored proteins, soluble CD14 can be released from the cell surface by phosphatidylinositol-specific phospholipase C. Soluble CD14 has been detected in serum and body fluids. High concentrations of soluble CD14 have been shown to inhibit LPS-mediated responses. However, soluble CD14 can also potentiate LPS response in cells that do not express cell surface CD14.

References: