

**CERTIFICATE OF ANALYSIS – TECHNICAL DATA SHEET**

<b>Product name</b>	CD14, Human, clone 18D11		
<b>Catalog number</b>	HM2224		
<b>Lot number</b>	-	<b>Expiry date</b>	-
<b>Volume</b>	1 ml	<b>Amount</b>	100 µg
<b>Formulation</b>	0.2 µm filtered in PBS+0.1%BSA	<b>Concentration</b>	100 µg/ml
<b>Host Species</b>	Mouse IgG1	<b>Conjugate</b>	None
<b>Endotoxin</b>	<24 EU/mg	<b>Purification</b>	Protein G
<b>Storage</b>	4°C		

**Application notes**

	IHC-F	IHC-P	IF	FC	FS	IA	IP	W
Reference #								
Yes				•	•			
No								
N.D.	•	•	•			•	•	•

N.D.= Not Determined; IHC = Immuno histochemistry; F = Frozen sections; P = Paraffin sections; IF = Immuno Fluorescence; FC = Flow Cytometry; FS = Functional Studies; IA = Immuno Assays; IP = Immuno Precipitation; W = Western blot

Dilutions to be used depend on detection system applied. It is recommended that users test the reagent and determine their own optimal dilutions. The typical starting working dilution is 1:50.

- FS: monoclonal antibody 24-31 is useful for inhibition of biological activity of sCD14. For neutralization of biological activity *in vitro* dilutions have to be made according to the amounts of human sCD14 to be inactivated.

**General Information**

**Description** The monoclonal antibody 18D11 recognizes human monocyte marker CD14, a 53 kDa glycoprotein. CD14 is a glycoposphatidylinositol-linked protein, which is part of the LPS receptor complex. CD14 binds lipopolysaccharide (LPS) and as such, acts as a pattern recognition receptor (PRR). CD14 has also been suggested to mediate phagocytosis of bacteria an apoptotic cells. CD14 is involved in the endotoxin mediated release of Tumor Necrosis Factor-alpha by monocytic cells. CD14 is present on most monocytic and macrophage like cell types: monocytes, macrophages, Kupffer cells, pleural phagocytic cells and dendritic reticular cells. CD14 is present at low density on a subpopulation granulocytes and activated or transformed B-cells. The monoclonal antibody 18D11 reacts with both soluble and membrane CD14. The monoclonal antibody 18D11 is useful for inhibition of biological activity of sCD14, it inhibits LPS induced TNF production. The monoclonal antibody is cross reactive with pig CD14. Together with a C5a neutralizing monoclonal antibody, 18D11 blocks sepsis in a pig model.

**Cross reactivity** Pig: Yes.

- References**
1. Tunheim, G et al; Human CD14 is an efficient target for recombinant immunoglobulin vaccine constructs that deliver T cell epitopes. *J Leukoc Biol* 2005, 77: 303
  2. Wang, J et al; Peptidoglycan primes for LPS-induced release of proinflammatory cytokines in whole human blood. *Shock* 2001, 16: 178
  3. Wang, J et al; Involvement of CD14 and toll-like receptors in activation of human monocytes by *Aspergillus fumigatus* hyphae. *Infect Immun* 2001 69: 2402
  4. Wang, J et al; Peptidoglycan and lipoteichoic acid from *Staphylococcus aureus* induce tumor necrosis factor alpha, interleukin 6 (IL-6), and IL-10 production in both T cells and monocytes in a human whole blood model. *Infect Immun* 2000 68: 3965

**Storage&stability** Product should be stored at 4°C. Under recommended storage conditions, product is stable for at least one year.

**Precautions**

For research use only. Not for use in or on humans or animals or for diagnostics. It is the responsibility of the user to comply with all local/state and federal rules in the use of this product. Hycult Biotech is not responsible for any patent infringements that might result from the use or derivation of this product.

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We hereby certify that the above-stated information is correct and that this product has been successfully tested by the Quality Control Department. This product was released for sale according to the existing specifications. This document has been produced electronically and is valid without a signature.

Approved by Manager of QC  
Robbert Zwinkels

Date  
19/03/2018

Do you have any questions or comments regarding this product? Please contact us via [support@hycultbiotech.com](mailto:support@hycultbiotech.com).