

Product Data Sheet

CD14 Protein, Mouse (HEK293, His-Fc)

Cat. No.:	HY-P75444
Synonyms:	Monocyte Differentiation Antigen CD14; CD14
Species:	Mouse
Source:	HEK293
Accession:	NP_033971.1 (S16-P345)
Gene ID:	12475
Molecular Weight:	85-95 kDa

PROPERTIES

AA Sequence	SPAPPEPCELDEESCSCNFSDPKPDWSSAFNCLGAADVELYGGGRSLEYLLKRVDTEADLGQFTDIIKSLSLKRLTVRAARIPSRILFGALRVLGISGLQELTLENLEVTGTAPPPLLEATGPDLNILNLRNVSWATRDAWLAELQQWLKPGLKVLSIAQAHSLNFSCEQVRVFPALSTLDLSDNPELGERGLISALCPLKFPTLQVLALRNAGMETPSGVCSALAAARVQLQGLDLSHNSLRDAAGAPSCDWPSQLNSLNLSFTGLKQVPKGLPAKLSVLDLSYNRLDRNPSPDELPQVGNLSLKGNPFLDSESHSEKF		
Biological Activity	Measured by its ability to enhance LPS-induced IL-6 secretion by CTLL-2 cells. The ED ₅₀ this effect is 468.3 ng/mL, corresponding to a specific activity is 2135.38 U/mg.		
Appearance	Lyophilized powder.		
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4.		
Endotoxin Level	<1 EU/µg, determined by LAL method.		
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in PBS, pH 7.4. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).		
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.		
Shipping	Room temperature in continental US; may vary elsewhere.		

DESCRIPTION

Background

CD14 encodes a protein pivotal in the innate immune response and prominently expressed in monocyte/macrophage cells. Functioning as a co-receptor, it binds various microbial and fungal molecules, including lipopolysaccharides (LPS). The LPS-binding activity of this protein is potentiated by the LPS binding protein (LBP), facilitating binding to the TLR4-MD-2 co-receptor complex. CD14 exists in two forms—soluble and cell surface-anchored by a glycosylphosphatidylinositol anchor. Its broad expression is observed across diverse tissues, such as the mammary gland and colon, highlighting its crucial role in immune-related processes.

Caution: Product has not been fully validated for medical applications. For research use only.

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