

CD14, Human, Recombinant, 0.1 mg

Catalog Number 5089

DESCRIPTION

Human CD14 (monocyte differentiation antigen CD14) is a 375 amino acid, phospholipid anchored cell surface protein. This protein is preferentially expressed on monocytes / macrophages. It cooperates with other proteins to mediate the innate immune response to bacterial lipopolysaccharide.

Full-length extracellular domain of human CD14 gene (20-345 aa) was constructed with 29 N-terminal T7/His tag and expressed in E. coli as inclusion bodies. The final product was refolded using our unique "temperature shift inclusion body refolding" technology and chromatographically purified.

CHARACTERISTICS

Parameter, Testing, and Method	CD14, Human, Recombinant Catalog # 5089
Quantity	0.1 mg (100 µg/vial)
Volume	0.2 mL
Concentration	0.5 mg/mL
Purity	≥90% as measured by SDS PAGE
Formulation	Formulated in 20 mM pH 8.0 Tris-HCl Buffer, with proprietary formulation of NaCl, KCl, EDTA, L-Arginine, DTT and Glycerol.
Form	Solution
Production Type	Recombinant – E. coli
Storage Temperature	Keep at -20°C for long term storage. Product is stable at 4 °C for at least 30 days
Shelf Life	12 months after receipt
Sterilization Method	Filtration
Cell Attachment Activity	Passes
Sterility	No growth
Accession No.	NP_000582
Recombinant Sequence	MASMTGGQQMGRGHHHHHGNLYFQGTTPPC ELDDEDFRCVCFSEFPDQWSEAFQCVSAVEVEI HAGGLNLEPFLKRVDADADPRQYADTVKALRV RRLTVGAAQVPAQLLVGALRVLAYSRKELTLE DLKITGTMPLPLEATGLALSSLRLRNVSATGR SWLAELQQWLKPLKVLVLSIAQAHSPAFCQVR AFPALTSLDLSDNPGLGERGLMAALCPHKFPAIQ NLALRNTGMETPTGVCAALAAAGVQPHSLDLSH NSLRATVNPSAPRCMWSSALNSLNSFAGLEQV PKGLPAKLRVLDLSCNRLNRAPQDELPEVDNLT LDGNPFLVPGTALPHEGSMN

APPLICATIONS

This product is for R&D use only and is not intended for human or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

INSTRUCTIONS FOR USE

Use these recommendations as guidelines to determine the optimal coating conditions for your culture system.

1. Thaw CD14 and dilute to desired concentration using serum-free medium or PBS. The final solution should be sufficiently dilute so that the volume added covers the surface evenly.
2. Add appropriate amount of diluted material to culture surface.
3. Incubate at room temperature for approximately 1 – 2 hours.
4. Aspirate remaining material.
5. Rinse plates carefully with dH₂O– avoid scratching bottom surface of plates.
6. Plates are ready for use. They may also be stored at 2-8°C damp or air dried if sterility is maintained.

Note: Coating this recombinant protein at 1-10 µg / well (6 well plate) in T cell specific medium can be used for 1) human T cell / receptor interaction study *in vitro* or 2) as a breast cancer biomarker for diagnosis application when combined with CD16 antigen.

REFERENCES

- (1) Schumann, R.R., et al. Structure and function of lipopolysaccharide binding protein, *Science* 249 (4975), 1429-1431 (1990)
- (2) Feng, A.L., et al. CD16+ monocytes in breast cancer patients: Expanded by monocyte chemo attractant protein-1 and may be useful for early diagnosis. *Clin. Exp. Immunol.* 164 (1), 57-65 (2011)