CD14 (EP128)

Rabbit anti-human CD14 Monoclonal Antibody (Clone EP128)

REFERENCES AND PRESENTATIONS[1]

- **ready-to-use (manual or LabVision AutoStainer)**
  MAD-000648QD–3
  MAD-000648QD–7
  MAD-000648QD–12
- **Ready-to-use (MD-Stainer)**[2]
  MAD-000648QD-3/V
  MAD-000648QD/V
- **concentrated**
  MAD-000648Q - 1:50 recommended dilution

COMPOSITION:
Anti-human CD14 rabbit monoclonal antibody purified from serum and prepared in 10mM PBS, pH 7.4, with 0.2% BSA and 0.09% sodium azide
INTENDED USE IVD: Immunohistochemistry (IHC) on paraffin embedded tissues. Not tested on frozen tissues or Western-Blotting
CLONE: EP128[3]
Ig ISOTYPE: IgG
IMMUNOGEN: A synthetic peptide corresponding to residues of human CD14 protein.
SPECIES REACTIVITY: In vitro diagnostics in humans. Not tested in other species
DESCRIPTION AND APPLICATIONS: CD14 is a 55-kDa protein found as a glycosylphosphatidylinositol (GPI)-anchored protein on the surface of monocytes, macrophages, and polymorphonuclear leukocytes, and as a soluble protein in the blood. Its main function is to serve as a receptor for lipopolysaccharide (LPS). Besides its role in endotoxin signaling, it has been proposed that CD14 is involved in the transportation of other lipids, cell-cell interactions during different immune responses, and recognition of apoptotic cells.

CD14 is highly expressed on the surface of monocytes/macrophages and strongly up-regulated during the differentiation of monocytic precursor cells into mature monocytes. Therefore, CD14 has been commonly used as a differentiation marker for monocytes/macrophages. An antibody to CD14 also labels Langerhans cells and dendritic cells.

IHC POSITIVE CONTROL: Tonsil for normal tissue and Histiocytic Sarcoma for abnormal tissue.
VISUALIZATION: Cell cytoplasm and membrane

IHC RECOMMENDED PROCEDURE:
- 4µm thick section should be taken on charged slides; dry overnight at 60ºC
- Deparaffinise, rehydrate and HIER (heat induced epitope retrieval) – boil tissue in the Pt Module using Vitro S.A EDTA buffer pH8[4] for 20 min at 95ºC. Upon completion rinse with 3-5 changes of distilled or deionised water followed by cooling at RT for 20 min
- Endogenous peroxidase block - Blocking for 10 minutes at room temperature using peroxidase solution (ref. MAD-021540Q-125)
- Primary antibody: incubate for 30 minutes [The antibody dilution (when concentrated) and protocol may vary depending on the specimen preparation and specific application. Optimal conditions should be determined by the individual laboratory]
- For detection use Master Polymer Plus Detection System (HRP) (DAB included; ref. MAD-000237QK)
- Counterstaining with haematoxylin and final mounting of the slide

STORAGE AND STABILITY: Stored at 2-8ºC. Do not freeze. Once the packaging has been opened it can be stored until the expiration date of the reagent indicated on the label. If the reagent has been stored under other conditions to those indicated in this document, the user must first check its correct performance taking into account the product warranty is no longer valid.

WARNINGS AND PRECAUTIONS:
1. Avoid contact of reagents with eyes and mucous membranes. If reagents come into contact with sensitive areas, wash with copious amounts of water.

[1] These references are for presentation in vials of Low Density Polyethylene (LDPE) dropper. In case the products are used in automated stainers, a special reference is assigned as follows:
- / L: Cylindrical screw-cap vials (QD-3 / L, QD-7 / L, QD-12 / L).
- / N: Polygonal screw-cap vials (QD-3 / N, QD-7 / N, QD-12 / N).
For different presentations (references / volumes) please contact the supplier.
2 For Technical specifications for MD-Stainer, please contact your distributor.
[3] CD14 clone EP128 is manufactured using Epitomics's RabMAb® technology under U.S. Patent Nos. 5,675,063 and 7,402,409

[4] Ref: MAD-004072R/D

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2. This product is harmful if swallowed.
3. Consult local or state authorities with regard to recommended method of disposal.
4. Avoid microbial contamination of reagents.

SAFETY RECOMMENDATIONS:

This product is intended for laboratory professional use only. The product is NOT intended to be used as a drug or for domestic purposes. The current version of the Safety Data Sheet for this product can be downloaded by searching the reference number at www.vitro.bio or can be requested at regulatory@vitro.bio.

BIBLIOGRAPHY:

1. Haziot A, Tsuberi BZ, Goyert SM: Neutrophil CD14: biochemical properties and role in the secretion of tumor necrosis factor-alpha in response to lipopolysaccharide. J Immunol. 150:5556-65 (1993).
2. Hailman E, Vasselon T, Kelley M, Busse LA, Hu MC, Lichenstein HS, Detmers PA, Wright SD: Stimulation of macrophages and neutrophils by complexes of lipopolysaccharide and soluble CD14. J Immunol. 156:4384-90 (1996).
3. Grimm MC, Elsbury SK, Pavli P, Doe WF: Enhanced expression and production of monocyte chemoattractant protein-1 in inflammatory bowel disease mucosa. J Leukoc Biol. 59:804-12 (1996).
4. Gregory CD, Devitt A: CD14 and apoptosis. Apoptosis. 4(1):11-20 (1999).
5. Risberg B, Davidson B, Nielsen S, Dong HP, Christensen J, Johansen P, Asschenfeldt P, Berner A.Detection of monocyte/macrophage cell populations in effusions: a comparative study using flow cytometric immunophenotyping and immunocytochemistry. Diagn Cytopathol. 25:214-9 (2001).

LABEL AND BOX SYMBOLS

Explanation of the symbols of the product label and box:

	Expiration date
	Temperature limit
	Manufacturer
	Sufficient content for <n> assays
	Catalog number
	Lot code
	Refer to the instructions of use
	Medical product for *in vitro* diagnosis.
	Material safety data sheet