Anti-CD163, AlpHcAbs® Human antibody

Summary

Cat.No	300-552-001
Immunogen	Recombinant human CD163
Host	Alpaca pacous
Isotype	Human IgG1
Conjugate	Unconjugated
Specificity	Human CD163
Purity	Recombinant Expression and Affinity purified
Concentration	1mg/ml
Formation	Liquid, 10mM PBS (pH 7.5), 0.05% sucrose, 0.1% trehalose, 0.01% proclin300, 50% Glycerol
Storage	Store at –20 °C, (Avoid freeze / thaw cycles)

Description

Anti-CD163, AlpHcAbs® Human antibody is designed for detecting human CD163 specifically. Based on ELISA and/or FCM, Anti-CD163, AlpHcAbs® Human antibody reacts with human CD163 specifically.

Background:

CD163 (M130 antigen, Ber-Mac3, Ki-M8, SM4) is a 130 kDa membrane glycoprotein, a member of the scavenger receptor cysteine-rich superfamily, and a receptor for the hemoglobin-haptoglobin complex. CD163 protects tissues from free hemoglobin-mediated oxidative damage, and may play a role in the uptake and recycling of iron, via endocytosis of hemoglobin/haptoglobin and subsequent breakdown of heme. CD163 is expressed exclusively on the cell surface of human monocytes and macrophages that evolve predominantly in the late phase of inflammation. Specifically, CD163 is present on all circulating monocytes and most tissue macrophages except those found in the mantle zone and germinal centers of lymphoid follicles, interdigitating reticulum cells and Langerhan's cells. CD163 is present on all CD14 positive monocytes, most CD64 positive monocytes, and shows higher expression on CD16 positive monocytes. CD163 is upregulated on mononuclear phagocytes by IL-10, IL-6 and dexamethasone. Lipopolysaccharide (LPS) and phorbol myristate acetate (PMA) both induce shedding of CD163 from the cell surface into plasma or cell supernatant. CD163 binds hemoglobin/haptoglobin complexes in a calcium-dependent and pH-dependent manner, and exhibits a higher affinity for complexes of hemoglobin and multimeric haptoglobin of HP1F phenotype than for complexes of hemoglobin and dimeric haptoglobin of HP1S phenotype. Further, CD163 also induces a cascade of intracellular signals that involves tyrosine kinase-dependent calcium mobilization, inositol triphosphate production and secretion of IL6 and CSF1.

Benefits

High lot-to-lot consistency
Increased sensitivity and higher affinity
Animal-free production

Application notes

ELISA: 1:4,000-1:10000
Flow Cytometry：1:200-1:1000

Dilution factors are presented in the form of a range because the optimal dilution is a function of many factors, such as antigen density,permeability, etc. The actual dilution used must be determined empirically.