Anti-CD38, AlpHcAbs® Human antibody

Summary

Code	300-508-001
Immunogen	Recombinant human CD38
Host	Alpaca pacous
Isotype	VHH domain of alpaca IgG2b/2c fused to Human IgG1 Fc(mutation)
Conjugate	Unconjugated
Specificity	Human CD38
Cross-Reactivity	Cross-reactivity with cynomolgus CD38
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), Stable for 12 months at -20°C

Description

Anti-CD38, AlpHcAbs® Human antibody is designed for detecting human CD38 specifically. Anti-CD38, AlpHcAbs® Human antibody is recombinant VHH domain of alpaca IgG2b/2c fused to Human IgG1 Fc. Based on ELISA, Anti-CD38, AlpHcAbs® Human antibody reacts with human CD38, and has reactivity with cynomolgus CD38.

Background

CD38 (NAD+ glycohydrolase) is a type II transmembrane glycoprotein able to induce activation, proliferation and differentiation of mature lymphocytes and mediate apoptosis of myeloid and lymphoid progenitor cells. CD38 functions as a multi-catalytic ectoenzyme serving as ADP-ribosyl cyclase, cyclic ADP-ribose hydrolase and possibly NAD+ glycohydrolase or as a cell surface receptor. Antibodies to CD38 are useful in subtyping of lymphomas and leukemias, detection of plasma cells (i.e. identification of myelomas), and as a marker for activated B and T cells. CD38 participates in cell adhesion, signal transduction and calcium signaling. Further, CD38 is expressed at high levels in the pancreas, liver, kidney, malignant lymphoma and neuroblastoma. Diseases associated with CD38 dysfunction include chronic lymphocytic leukemia and Richter's Syndrome.
Using antibody with Fc(mutation), the background from Fc receptors will be eliminated.

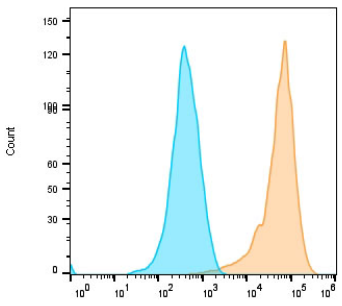
Benefits

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

Suggested Working Concentration

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.



Flow cytometric analysis of CD38-overexpressed HEK-293T (human epithelial cell line from embryonic kidney transformed with large T antigen) labeling CD38 with 300-508-001 at 1:10000 dilution(yellow) compared with Human IgG1-Isotype control(green). Anti-Human IgG(H+L),HcAbs® Goat antibody(FITC)(023-403-006), at 1/1000 dilution was used as the secondary antibody.