

Anti-CD7, AlpHcAbs[®] Human antibody

Summary

Code	300-507-001
Immunogen	Recombinant human CD7
Host	Alpaca pacous
Isotype	VHH domain of alpaca IgG2b/2c fused to Human IgG1 Fc(mutation)
Conjugate	Unconjugated
Specificity	Human CD7
Cross-Reactivity	Cross-reactivity with cynomolgus CD7
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-CD7, AlpHcAbs[®] Human antibody is designed for detecting human CD7 specifically. Anti-CD7, AlpHcAbs[®] Human antibody is recombinant VHH domain of alpaca IgG2b/2c fused to Human IgG1 Fc. Based on ELISA, Anti-CD7, AlpHcAbs[®] Human antibody reacts with human CD7, and has reactivity with cynomolgus CD7.

Background

CD7 (gp40, Leu9) is a 40 kDa member of the immunoglobulin gene superfamily. CD7 contains N-terminal amino acids 1-107 are highly homologous to Ig kappa-L chains whereas the carboxy-terminal region of the extracellular domain is proline-rich and has been postulated to form a stalk from which the Ig domain projects. CD7 is expressed on the majority of immature and mature T-lymphocytes, and T cell leukemia. Further, CD7 is also found on natural killer cells, a small subpopulation of normal B cells and on malignant B cells. Cross-linking surface CD7 positively modulates T cell and NK cell activity as measured by calcium fluxes, expression of adhesion molecules, cytokine secretion and proliferation. CD7 associates directly with phosphoinositol 3'-kinase. CD7 ligation induces production of D-3 phosphoinositides and tyrosine phosphorylation. Expression of CD7 is an important marker used in leukemia diagnostics.

Using antibody with Fc(mutation), the background from Fc receptors will be eliminated.

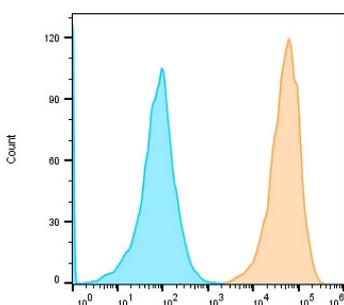
Benefits

- 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 CD7-overexpressed HEK-293T (human epithelial cell line from embryonic kidney transformed with large T antigen) labeling CD7 with 300-507-001 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.

This product is for research use only and is not approved for use in humans or in clinical