

# Anti-Human IgM, AlpHcAbs<sup>®</sup> Goat antibody

## Summary

Code	023-410-001
Immunogen	Human IgM
Host	Alpaca pacous
Isotype	VHH domain of alpaca IgG2b/2c fused to goat IgG Fc(mutation)
Conjugate	Unconjugated
Specificity	Human IgM
Cross-Reactivity	Does not bind to human IgG, IgD, IgA, IgE
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-Human IgM, AlpHcAbs<sup>®</sup> Goat antibody is designed for detecting human IgM specifically. Anti-Human IgM, AlpHcAbs<sup>®</sup> Goat antibody is monovalent, recombinant single domain antibody fused to goat IgG Fc(mutation). Based on immunoelectrophoresis and/or ELISA, Anti-Human IgM, AlpHcAbs<sup>®</sup> Goat antibody reacts with human IgM selectively, no reactivity with human IgG, IgD, IgA, IgE.

## Background

In mammals, antibodies are classified into five main classes or isotypes—IgA, IgD, IgE, IgG and IgM. They are classed according to the heavy chain they contain – alpha, delta, epsilon, gamma or mu respectively. IgM normally constitutes about 10% of serum immunoglobulins. IgM antibody is prominent in early immune responses to most antigens and is largely confined to plasma due to its large size. Monomeric IgM is expressed as a membrane bound antibody on the surface of B cells and as a pentamer when secreted by plasma cells. IgM measurement yields information about the body's immediate resistance and response to infection as well as information related to specific diseases. Decreased levels are associated with immune deficiency states, hereditary deficiencies, and myeloma. Increased levels can be associated with Waldenstrom's macroglobulinemia, chronic infection and hepatocellular disease.

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	1:10000-1:50000
ICC/IF	1:200-1:1000
IP	1-2ug/sample
Flow Cyt	1µg for 10 <sup>6</sup> cells

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.

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