Anti-Mouse IgM(μ chain specific), AlpHcAbs® Goat antibody(Biotin)

Summary

Code	001-407-004
Immunogen	Recombinant Fc region of mouse IgM
Host	Alpaca pacous
Isotype	VHH domain of alpaca IgG2b/2c fused to goat IgG Fc
Conjugate	Biotin-SP (long spacer)
Specificity	Fc region of mouse IgM (μ chain specific)
Cross-Reactivity	No cross-reactivity with mouse, rabbit, human, cynomolgus, rat, goat IgG
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
Storage	Store at –20 °C(Avoid freeze / thaw cycles), Stable for 12 months at -20°C

Description

Anti-Mouse IgM(μ chain specific), AlpHcAbs® Goat antibody(Biotin) is designed for detecting mouse IgM specifically. Anti-Mouse IgM(μ chain specific), AlpHcAbs® Goat antibody(Biotin) is based on monoclonal, recombinant, goat IgG Fc fused single domain antibody to μ chain of mouse IgM coupled to Biotin. Based on immunoelectrophoresis and/or ELISA, Anti-Mouse IgM(μ chain specific), AlpHcAbs® Goat antibody(Biotin) reacts with the μ chain of mouse IgM selectively, no reactivity with mouse, rabbit, human, cynomolgus, rat, goat IgG.

Background

Most monoclonal antibodies are generated in mouse. There are five antibody isotypes (IgA, IgD, IgE, IgG, and IgM) from mouse. Each isotype has a different heavy chain. IgM accounts for 5-10% of the immunoglobulin pool and is the predominant antibody in the primary immune response. Unlike IgG, IgM does not contain a hinge region but does contain an additional constant domain. The monomeric form IgM has a molecular weight of 180 KD. It is classically represented as a pentamer of the basic four chain structure held together by a J chain but can also exist in a hexameric form without the J chain and as a monomer on the surface of B-cells.

VHH are single-domain antibodies derived from the variable regions of heavy chain of Camelidae immunoglobulin. The size of VHH is extremely small(<15KDa) compared to other forms of antibody fragment, which significantly increase the permeability of VHH. Thus VHH is considered of great value for research, diagnostics and therapeutics.

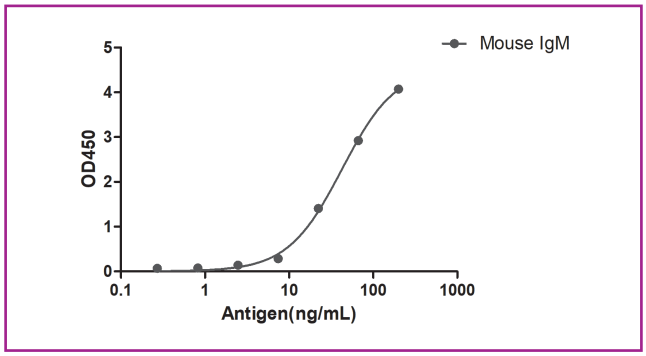
Benefits

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

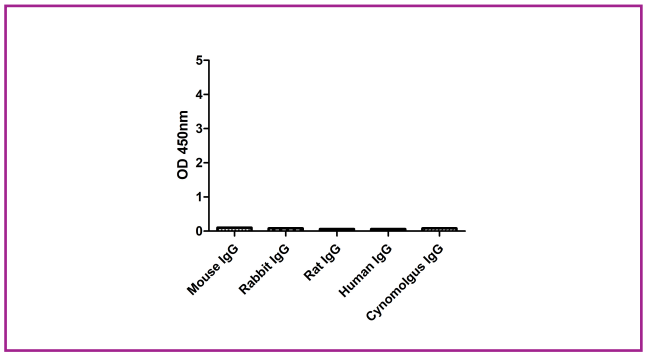
Suggested Working Concentration

ELISA	1:5000-1:20000
WB	1:5000-1:20000

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.



A titer ELISA of mouse IgM. The plate was coated with different amounts of mouse IgM. 1:5000 dilution of Anti-Mouse IgM(μ chain specific), AlpHcAbs® Goat antibody(Biotin) was used as the primary antibody. An HRP conjugated streptavidin as the secondary antibody.



ELISA of specificity for different species of IgG. The plate was coated with 2ug/ml of different IgG. 1:1000 dilution of Anti-Mouse IgM(μ chain specific), AlpHcAbs® Goat antibody(Biotin) was used as the primary antibody. An HRP conjugated streptavidin as the secondary antibody.