

# Anti-Mouse IgM(µ chain specific), AlpHcAbs<sup>®</sup> Goat antibody(HRP)

## Summary

Code	001-407-005
Immunogen	Recombinant Fc region of mouse IgM
Host	Alpaca pacous
Isotype	VHH domain of alpaca IgG2b/2c fused to goat IgG Fc
Conjugate	HRP
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, 50% Glycerol
Storage	Store at –20 °C(Avoid freeze / thaw cycles), protect from light, Stable for 12 months at -20°C

#### Description

Anti-Mouse IgM( $\mu$  chain specific), AlpHcAbs<sup>®</sup> Goat antibody(HRP) is designed for detecting mouse IgM specifically. Anti-Mouse IgM( $\mu$  chain specific), AlpHcAbs<sup>®</sup> Goat antibody(HRP) is based on monoclonal, recombinant, goat IgG Fc fused single domain antibody to  $\mu$  chain of mouse IgM coupled to HRP. Based on immunoelectrophoresis and/or ELISA, Anti-Mouse IgM( $\mu$  chain specific), AlpHcAbs<sup>®</sup> Goat antibody(HRP) reacts with the  $\mu$  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

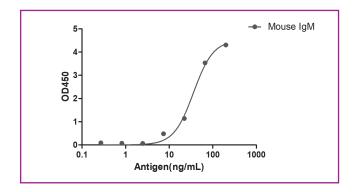
## Suggested Working Concentration

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

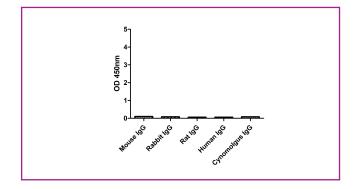
Dilution factors are presented in the form of a range because the optimal dilution is a function of many factors, such as antigen density, permeability, etc. The actual dilution used must be determined empirically.

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A titer ELISA of mouse IgM. The plate was coated with different amounts of mouse IgM. 1:5000 dilution of Anti-Mouse IgM( $\mu$  chain specific), AlpHcAbs<sup>®</sup> Goat antibody(HRP) was used as the detection 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( $\mu$  chain specific), AlpHcAbs<sup>®</sup> Goat antibody(HRP) was used as the detection antibody.

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