



# Anti-Mouse IgG kappa, AlpSdAbs<sup>®</sup> VHH (Biotin)

## Summary

Code	001-106-004
Immunogen	Fab region of Mouse IgG
Host	Alpaca pacous
Isotype	VHH domain of alpaca IgG2a/2b
Conjugate	Biotin-SP (long spacer)
Specificity	Mouse IgG kappa chain
Cross-Reactivity	No cross-reactivity with 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 IgG kappa, AlpSdAbs<sup>®</sup> VHH(Biotin) is designed for detecting mouse IgG kappa chain specifically. Anti-Mouse IgG kappa, AlpSdAbs<sup>®</sup> VHH(Biotin) is based on monoclonal, recombinant single domain antibody to mouse IgG kappa chain coupled to Biotin. Based on immunoelectrophoresis and/or ELISA, Anti-Mouse IgG kappa, AlpSdAbs<sup>®</sup> VHH(Biotin) reacts with the mouse IgG kappa chain selectively, no reactivity with the mouse IgG lambda chain or heavy chain of mouse 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. Mouse IgG constitutes 75% of serum immunoglobulins, and IgG is the predominant form of first antibody produced from mouse. Mouse IgG consists of five subclasses-IgG1, IgG2a, IgG2b, IgG2c(inbred mouse strains with the Igh1-b allele have IgG2c isotype instead of IgG2a), IgG3. They are highly homologous and differ mainly in the hinge region. The whole IgG molecule possesses both the Fc region and the Fab region, which possessing the epitope-recognition site. The IgG contains two heavy and light chains(kappa or lambda), and the heavy chain is about 50 KD and the light chain is about 25 KD. The common IgG is monomeric with a molecular weight of approximately 150 kD.

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

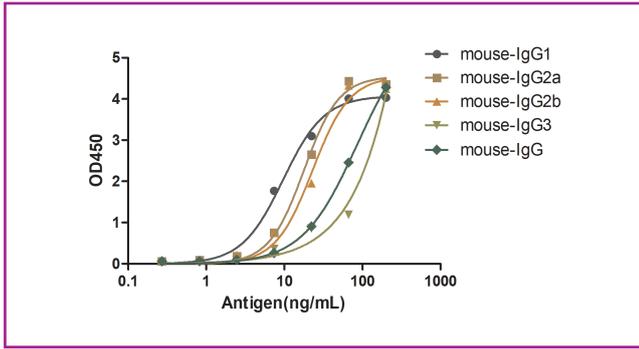
High lot-to-lot consistency  
Increased sensitivity and higher affinity  
Animal-free production

## Suggested Working Concentration

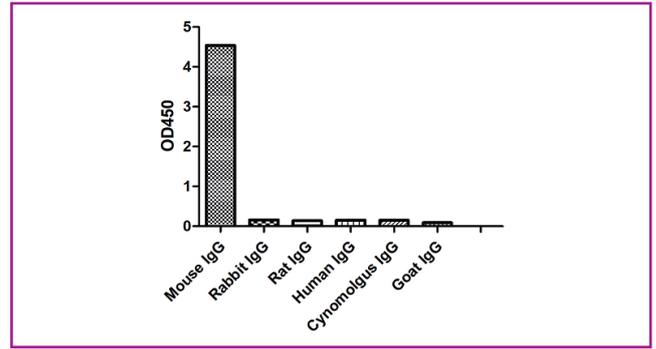
ELISA	1:5000-1:20000
WB	1:5000-1:20000

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.

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



A titer ELISA of mouse IgG. The plate was coated with different amounts of mouse IgG or different isotope of mouse IgG(kappa light chain). 1:5000 dilution of Anti-Mouse IgG kappa, AlpSdAbs® VHH(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 IgG kappa, AlpSdAbs® VHH(Biotin) was used as the primary antibody. An HRP conjugated streptavidin as the secondary antibody.

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