

# Anti-Mouse IgG1(Fcγ Fragment specific), AlpSdAbs<sup>®</sup> VHH (Biotin)

## Summary

<b>Code</b>	001-108-004
<b>Immunogen</b>	Recombinant Fc region of mouse IgG1
<b>Host</b>	Alpaca pacous
<b>Isotype</b>	VHH domain of alpaca IgG2b/2c
<b>Conjugate</b>	Biotin-SP (long spacer)
<b>Specificity</b>	Mouse IgG1(Fcγ fragment specific)
<b>Cross-Reactivity</b>	It has weak cross reaction with mouse IgG3. No cross-reactivity with mouse IgG2a/2b, mouse IgM, rabbit, human, cynomolgus, rat, goat IgG
<b>Purity</b>	Recombinant Expression and Affinity purified
<b>Concentration</b>	1mg/ml
<b>Formation</b>	Liquid, 10mM PBS (pH 7.5), 0.05% sucrose, 0.1% trehalose, 0.01% proclin300
<b>Storage</b>	Store at -20 °C(Avoid freeze / thaw cycles), Stable for 12 months at -20°C

## Description

Anti-Mouse IgG1(Fcγ Fragment specific), AlpSdAbs<sup>®</sup> VHH (Biotin) is designed for detecting mouse IgG1 Fcγ fragment specifically. Anti-Mouse IgG1(Fcγ Fragment specific), AlpSdAbs<sup>®</sup> VHH (Biotin) is based on monoclonal, recombinant single domain antibody to mouse IgG1 Fc coupled to Biotin. Based on immunoelectrophoresis and/or ELISA, Anti-Mouse IgG1(Fcγ Fragment specific), AlpSdAbs<sup>®</sup> VHH (Biotin) reacts with the Fc fragment of mouse IgG1 selectively, no reactivity with other mouse IgG subclasses, mouse IgM, or the Fab portion of mouse immunoglobulins.

## 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, 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

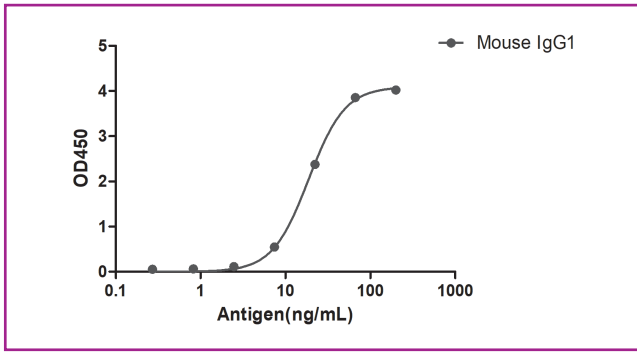
High lot-to-lot consistency  
 Increased sensitivity and higher affinity  
 Animal-free production

## Suggested Working Concentration

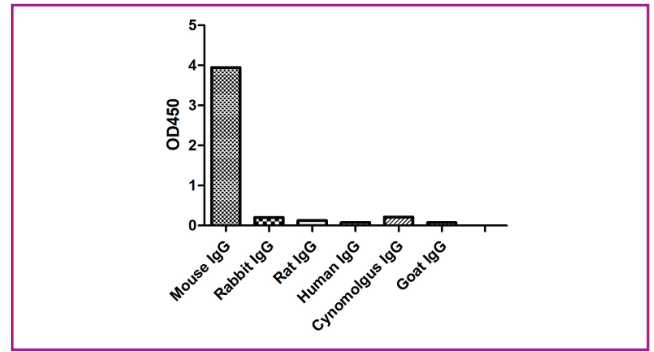
<b>ELISA</b>	1:10000-1:50000
<b>WB</b>	1:10000-1:50000

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 IgG1. The plate was coated with different amounts of mouse IgG 1. 1:10000 dilution of Anti-Mouse IgG1(Fcγ Fragment specific), 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 IgG1(Fcγ Fragment specific), AlpSdAbs® VHH(Biotin) was used as the primary antibody. An HRP conjugated streptavidin as the secondary antibody.

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