Anti-Mouse IgG(Fcγ fragment specific), AlpSdAbs® VHH(HRP)

Summary

Code	001-102-005
Immunogen	Recombinant mouse IgG
Host	Alpaca pacous
Isotype	VHH domain of alpaca IgG2b/2c
Conjugate	HRP
Specificity	Mouse IgG(Fcγ fragment specific)
Cross-Reactivity	No cross-reactivity with mouse IgM, 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 IgG(Fcγ fragment specific), AlpSdAbs® VHH(HRP) is designed for detecting the Fc region of mouse IgG. Anti-Mouse IgG(Fcγ fragment specific), AlpSdAbs® VHH(HRP) is based on monovalent, recombinant single domain antibodies to mouse IgG(Fcγ fragment specific) coupled to HRP, and the Anti-Mouse IgG(Fcγ fragment specific), AlpSdAbs® VHH(HRP) detects the Fc region of mouse IgG selectively, no reactivity with 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 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.

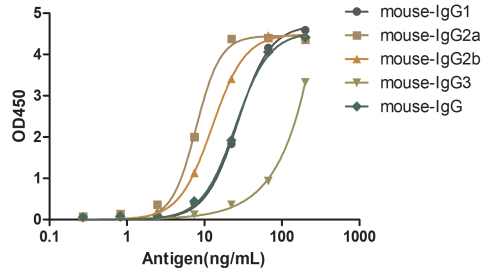
Benefits

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

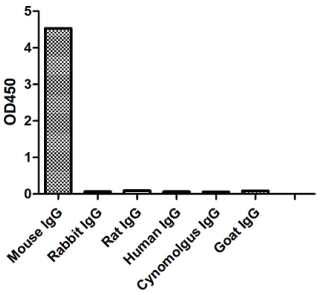
Suggested Working Concentration

ELISA	1:10000-1:50000
WB	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.



A titer ELISA of mouse IgG. The plate was coated with different amounts of mouse IgG or different isotope of mouse IgG. 1:10000 dilution of Anti-Mouse IgG(Fcγ fragment specific), AlpSdAbs® VHH(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 IgG(Fcγ Fragment specific), AlpSdAbs® VHH(HRP) was used as the detection antibody.