



# Anti-Rat IgG(H+L), AlpSdAbs<sup>®</sup> VHH(Biotin)

## Summary

Code	071-101-004
Immunogen	Rat IgG
Host	Alpaca pacous
Isotype	VHH domain of alpaca IgG2b/2c
Conjugate	Biotin-SP (long spacer)
Specificity	Rat IgG(H+L)
Cross-Reactivity	Does not bind to mouse IgG, rabbit IgG, goat IgG, human 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)

## Description

Anti-Rat IgG(H+L), AlpSdAbs<sup>®</sup> VHH(Biotin) is designed for detecting rat IgG specifically. Anti-Rat IgG(H+L), AlpSdAbs<sup>®</sup> VHH(Biotin) is based on recombinant single domain antibody to rat IgG coupled to Biotin. Based on immunoelectrophoresis and/or ELISA, Anti-Rat IgG(H+L), AlpSdAbs<sup>®</sup> VHH(Biotin) reacts with rat IgG(H+L) selectively, no reactivity with mouse IgG, rabbit IgG, goat IgG, human IgG.

## Background

There are five antibody isotypes (IgA, IgD, IgE, IgG, and IgM) from rat. Each isotype has a different heavy chain. Rat IgG consists of four subclasses-IgG1, IgG2a, IgG2b, IgG2c. 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

ELISA 1:5000-1:20000

WB 1:5000-1:20000

IP 1-2ug/sample

BLI (biolayer interferometry)

SPR (surface plasmon resonance)

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