

# Anti-Rat IgG(Fab Fragment specific), AlpSdAbs<sup>®</sup> VHH

## Summary

<b>Code</b>	071-103-001
<b>Immunogen</b>	Rat IgG Fab
<b>Host</b>	Alpaca pacous
<b>Isotype</b>	VHH domain of alpaca IgG2b/2c
<b>Conjugate</b>	Unconjugated(6*his tag and one cys were added at the C terminal of the VHH)
<b>Specificity</b>	Rat IgG(Fab fragment)
<b>Cross-Reactivity</b>	Does not bind to mouse IgG, rabbit IgG, goat IgG, human 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)

## Description

Anti-Rat IgG(Fab Fragment specific), AlpSdAbs<sup>®</sup> VHH is designed for detecting rat IgG fab fragment specifically. Anti-Rat IgG(Fab Fragment specific), AlpSdAbs<sup>®</sup> VHH is recombinant single domain antibody derived from the variable regions of heavy chain of Alpaca pacous. Based on immunoelectrophoresis and/or ELISA, Anti-Rat IgG(Fab Fragment specific), AlpSdAbs<sup>®</sup> VHH reacts with rat IgG fab fragment 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

<b>ELISA</b>	1:5000-1:20000
<b>WB</b>	1:5000-1:20000
<b>IP</b>	1-2ug/sample

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