



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

## Summary

Code	071-103-005
Immunogen	Rat IgG Fab
Host	Alpaca pacous
Isotype	VHH domain of alpaca IgG2b/2c
Conjugate	HRP
Specificity	Rat IgG(Fcγ Fragment specific)
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, 50% glycerol
Storage	Store at -20 °C(Avoid freeze / thaw cycles), Protect from light.

## Description

Anti-Rat IgG(Fab Fragment specific), AlpSdAbs<sup>®</sup> VHH(HRP) is designed for detecting rat IgG fab fragment specifically. Anti-Rat IgG(Fab Fragment specific), AlpSdAbs<sup>®</sup> VHH(HRP) is based on recombinant single domain antibody to rat IgG fab fragment coupled to HRP. Based on immunoelectrophoresis and/or ELISA, Anti-Rat IgG(Fab Fragment specific), AlpSdAbs<sup>®</sup> VHH(HRP) 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

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