

# Anti-VHH, AlpHcAbs<sup>®</sup> Rabbit antibody (iFluor647)

## Summary

Code	077-201-009
Immunogen	Recombinant VHH antibody from Alpaca
Host	Rabbit
Isotype	Rabbit IgG
Conjugate	iFlour647(Ex: 652nm, Em: 668nm), 3 moles iFlour647 per mole IgG
Specificity	Camelid VHH antibody(Llama, Alpaca and Camel)
Cross-Reactivity	No cross-reactivity with mouse, rat, rabbit, goat or human IgG
Purity	Recombinant Expression and Affinity purified
Size	100ug
Buffer	10mM PBS(pH 7.5),0.05%sucrose,0.1%trehalose,0.01%proclin300
Formation	Freeze-dried Powder, Store at 2-8°C
Rehydration	Rehydrated by 100uL dH2O before using(Final concentration:1mg/mL)
Storage after Rehydration	-20°C(Avoid freeze/thaw cycles)

## Description

Anti-VHH, AlpHcAbs<sup>®</sup> Rabbit antibody(iFluor647) is designed for detecting camelid VHH antibody(Llama, Alpaca and Camel) specifically. Based on immunoelectrophoresis and/or ELISA, Anti-VHH, AlpHcAbs<sup>®</sup> Rabbit antibody(iFluor647) reacts with camelid VHH antibody selectively, no cross-reactivity with mouse, rat, rabbit, goat or human IgG.

## Background

The biological family Camelidae comprises camels (one-humped *Camelus dromedarius* and two-humped *Camelus bactrianus*), llama (*Lama glama* and *Lama guanicoe*), and vicugna (*Vicugna vicugna* and *Vicugna pacos*). Camelidae contain two kinds of IgG in serum: conventional antibodies (IgG1) containing two light chains and two heavy chains (composed of the VH, CH1, hinge, and CH2 and CH3 domains) and two types of homodimeric heavy-chain antibodies (HCAbs), IgG2 and IgG3, which comprise only H chains; each H chain contains a VHH, hinge, and CH2 and CH3 domains. The smallest intact functional antigen-binding fragment of HCAbs is the single-domain VHH, also known as a nanobody(Nb). 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

Flow Cyt	1:200-1:1000
ICC/IF	1:200-1:1000
ELISA	1:4000 -1:10000
WB	1:4000 -1:10000

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