

Anti-GFP, AlpSdAbs[®] VHH

Summary

Code	019-101-001
Immunogen	GFP
Host	Alpaca pacous
Isotype	VHH domain of alpaca IgG2b/2c
Conjugate	Unconjugated(6*his tag and one cys were added at the C terminal of the VHH)
Specificity	GFP
Cross-Reactivity	Recognizes GFP, mEGFP, superfolder GFP and most common CFP and YFP variants. Does not cross-react with mCherry, mRFP, dsRed, mTagBFP, mTagRFP or their most common derivatives
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-GFP, AlpSdAbs[®] VHH is designed for detecting GFP fusion proteins specifically. Anti-GFP, AlpSdAbs[®] VHH is based on monoclonal, recombinant, single domain antibody derived from the variable regions of heavy chain of Alpaca pacous. Based on immunoelectrophoresis and/or ELISA, Anti-GFP, AlpSdAbs[®] VHH detects the GFP selectively, no reactivity with other proteins.

Background

Green fluorescent proteins (GFPs) and the variants thereof are widely used to study protein function and location. GFP was originally derived from the jellyfish *Aequorea victoria*. It has 238 amino acid residues and a green fluorophore, which is comprised of only three amino acids: Ser65-Tyr66-Gly67. The stable protein structure is formed by beta sheets, which have a conformation that makes up an 11-stranded drum-like structure. The stability of GFP allows it to withstand pH levels ranging from mildly acidic (pH=5.5) to extremely basic (pH=12), and can also resist temperatures of up to 65°C. GFP has major and minor excitation peaks at wavelengths of 395 nm and 475 nm, respectively.

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

Application notes

WB	1:5,000-1:20000
ELISA	1:5,000-1:20000
IP	1:100-1:500

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