APC-Labeled Monoclonal Anti-Camelid VHH Antibody, Rabbit IgG (M1A11) (0.03% Proclin)

Catalog # CAH-AY2491a

Source

Monoclonal Anti-Camelid VHH Antibody, Rabbit IgG (M1A11) is a recombinant rabbit monoclonal antibody expressed in HEK293 cells.

Application

Flow Cytometry (Evaluation of cell surface expressed CARs with VHH extracellular domain).

Clone

M1A11

Species

Rabbit

Isotype

Rabbit IgG | Rabbit Kappa

Specificity

This antibody can react with Humanized and Alpaca VHHs. No cross-reactivity was observed with human IgG1, human IgG4, mouse IgG1, mouse IgG2a, mouse IgG2b, rabbit IgG, or rat IgG at concentrations below 1 μg/mL.

Reactivity

Alpaca VHH, Humanized VHH

Immunogen

Recombinant VHH is expressed in *E. coli*

Conjugate

APC

Excitation Wavelength: 640 nm

Emission Wavelength: 661 nm

Isotype Control

The isotype control is sold separately; please refer to Cat. No. **DNP-AHFM776** for product information.

Recommended Dilution

1:50

Formulation

Lyophilized from a 0.22 μm-filtered solution in PBS (pH 7.4) containing 0.03% ProClin 300 and 0.2% BSA, with trehalose as protectant.

Please contact us for customized product forms or formulations.

Reconstitution

Please refer to the Certificate of Analysis (CoA) for specific instructions.

For best performance, we strongly recommend following the reconstitution protocol provided in the CoA.

Storage

For long term storage, the product should be stored in a lyophilized state at -20°C or lower.

Please protect from light and avoid repeated freeze-thaw cycles.

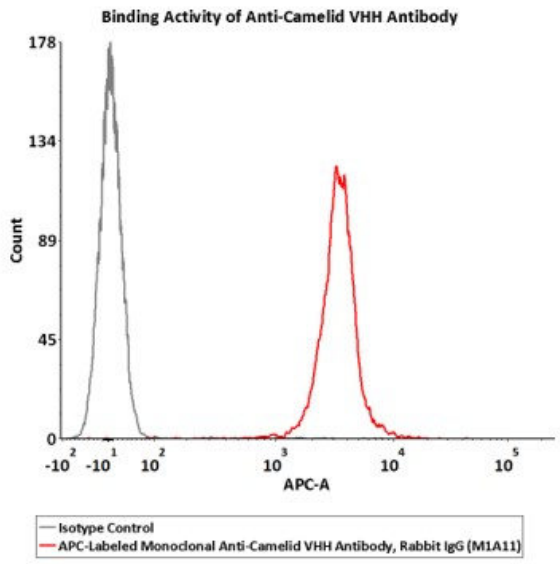
This product is stable after storage at:

- -20°C to -70°C for 24 months in lyophilized state;
- -70°C for 12 months after reconstitution.
- 2-8 °C for 12 months after reconstitution.

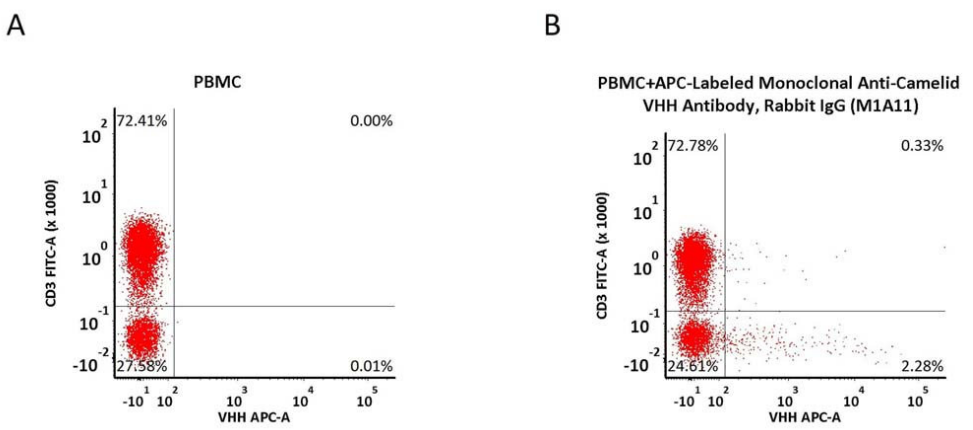
ACRO Quality Management System

- QMS(ISO, GMP)
- Quality Advantages
- Quality Control Process

Bioactivity-FACS

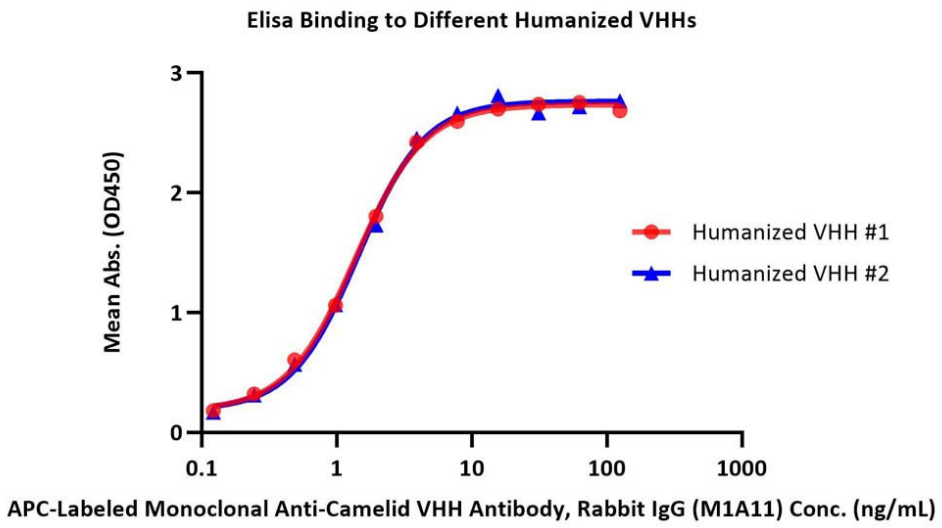


Flow cytometric analysis of Anti-BCMA (VHH format) CAR stained with APC-Labeled Monoclonal Anti-Camelid VHH Antibody, Rabbit IgG (M1A11) (Cat. No. CAH-AY2491a) at a 1:50 dilution (2 µL of antibody stock solution was used to stain 1 × 10^6 cells in a final volume of 100 µL), with an isotype control antibody included as a negative control. APC fluorescence signals was used to evaluate binding activity (QC tested).

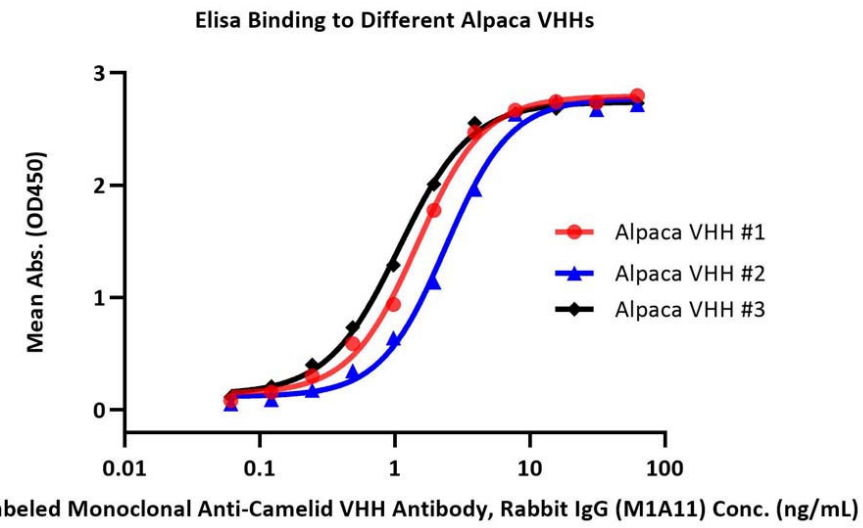


Flow cytometric analysis of the non-specific binding of APC-Labeled Monoclonal Anti-Camelid VHH Antibody, Rabbit IgG (M1A11) (Cat. No. CAH-AY2491a) to CD3+ cells in human PBMCs. A total of 5 × 10^5 human PBMCs were stained with FITC-labeled anti-CD3 antibody alone (A) or co-stained with FITC-labeled anti-CD3 antibody and APC-Labeled Monoclonal Anti-Camelid VHH Antibody, Rabbit IgG (M1A11) (Cat. No. CAH-AY2491a) (B) (2 µL of antibody stock solution per 5 × 10^5 cells in a final staining volume of 100 µL), washed, and analyzed by FACS. FITC and APC fluorescence signals were used to evaluate the non-specific binding of the APC-labeled antibody to human CD3+ cells (QC tested).

Bioactivity-ELISA



Binding activity of APC-Labeled Monoclonal Anti-Camelid VHH Antibody, Rabbit IgG (M1A11) (Cat. No. CAH-AY2491a) to different Humanized VHHs, as determined by ELISA. Humanized VHHs were coated at 1 µg/mL. The primary antibody (Cat. No. CAH-AY2491a) was serially diluted starting from 125 ng/mL, and Peroxidase AffiniPure Goat Anti-Rabbit IgG, Fc Fragment Specific was used as the secondary antibody at a dilution of 1:30,000. Binding was measured by OD_{450} (Routinely tested).



Binding activity of APC-Labeled Monoclonal Anti-Camelid VHH Antibody, Rabbit IgG (M1A11) (Cat. No. CAH-AY2491a) to different Alpaca VHHs, as determined by ELISA. Alpaca VHHs were coated at 1 µg/mL. The primary antibody (Cat. No. CAH-AY2491a) was serially diluted starting from 62.5 ng/mL, and Peroxidase AffiniPure Goat Anti-Rabbit IgG, Fc Fragment Specific was used as the secondary antibody at a dilution of 1:30,000. Binding was measured by OD_{450} (Routinely tested).

Background

VHH-based CARs are widely used in cell therapy development due to their small size and high specificity. To support flow cytometry-based detection of VHH CAR-positive cells, we developed universal anti-VHH antibodies. Fluorophore-labeled formats enable direct, sensitive, and reliable detection of CAR expression, supporting process optimization and quality control for cell therapy manufacturing.