

# Anti-FMC63, AlpHcAbs® Rabbit antibody(Biotin)

## Summary

Code#	101-201-004
Immunogen	FMC63 antibody
Host	Alpaca pacous
Isotype	VHH domain of alpaca IgG2b/2c fused to Rabbit IgG Fc
Conjugate	Biotin
Specificity	FMC63 scFv antibody
Cross-Reactivity	Recognizes FMC63 antibody, No Cross-reactivity to mouse IgG
Purity	Recombinant Expression and Affinity purified
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-FMC63, AlpHcAbs® Rabbit antibody(Biotin) is designed for detecting FMC63 scFv antibody specifically. Anti-FMC63, AlpHcAbs® Rabbit antibody(Biotin) is based on monoclonal, recombinant single domain antibody to FMC63 antibody fused to Biotin. Based on immunoelectrophoresis and/or ELISA, Anti-FMC63, AlpHcAbs® Rabbit antibody(Biotin) reacts with the reacts with the FMC63 scFv antibody specifically.

## Background

The FMC63 scFv (single-chain variable fragment) is a key component in many chimeric antigen receptor (CAR) designs, particularly in CAR-T cell therapies. Derived from a murine monoclonal antibody, FMC63 specifically targets human CD19, a cell surface protein highly expressed on B-cells, including malignant B-cells in B-cell leukemias and lymphomas. This scFv fragment is engineered by fusing the variable regions of the heavy and light chains of the antibody, preserving the antigen-binding capability while significantly reducing its size. This smaller, single-chain format enhances its integration into CAR constructs, enabling the recognition and destruction of CD19-positive cells by CAR-T cells. FMC63-based CARs are widely used in immunotherapy, particularly in FDA-approved treatments for B-cell malignancies, such as Kymriah® and Yescarta®.

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

ELISA: 1:5000 -1:20000  
 Flow Cyt: 1:200-1:1000

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