Anti-M13 Bacteriophage, AlpHcAbs® Rabbit antibody(iFlour647)

Summary

Code	052-201-009
Immunogen	Full length M13 phage coat protein
Host	Alpaca pacous
Isotype	VHH domain of alpaca IgG2b/2c fused to Rabbit Fc(mutation)
Conjugate	iFlour647(Ex: 652nm, Em: 668nm), 3 moles iFlour647 per mole IgG
Specificity	M13 phage coat protein, exact epitope not determined
Cross-Reactivity	Highly selective for M13 phage
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- M13 Bacteriophage, AlpHcAbs® Rabbit antibody(iFlour647) is designed for detecting M13 Bacteriophage specifically. Anti-M13 Bacteriophage, AlpHcAbs® Rabbit antibody(iFlour647) is based on monoclonal, recombinant, rabbit Fc fused VHH to M13 Bacteriophage coupled to iFlour647, and Anti-M13 Bacteriophage, AlpHcAbs® Rabbit antibody(iFlour647) detects the M13 Bacteriophage selectively, no reactivity with other proteins.

Background

M13 is a filamentous bacteriophage composed of circular single stranded DNA (ssDNA) which is 6470 nucleotides long encapsulated in approximately 2700 copies of the major coat protein P8, and capped with 5 copies of two different minor coat proteins (P9, P6, P3) on the ends. Infection with fi□lamentous phages is not lethal, however the infection causes turbid plaques in E. coli. It is a non-lytic virus. However a decrease in the rate of cell growth is seen in the infected cells. M13 plasmids are used for many recombinant DNA processes, and the virus has also been studied for its uses in nanostructures and nanotechnology.

The display of repertoires of antibody fragments on the surface of filamentous phage offers a new way to produce immunoreagents with defined specificities. Phage derived antibody fragments offer a number of advantages over mouse monoclonal antibodies, such as better clearance from the blood, the possibility to select from human combinatorial libraries and the relative ease by which such fragments can be manipulated. The phage display technique thus facilitates the selection of antibody fragments of therapeutic value or research interest. Antibodies to M13 filamentous phage coat proteins are instrumental in the selection and detection of phages expressing specific antibody fragments or peptide sequences at their surface.

Using antibody with Fc(mutation), the background from Fc receptors will be eliminated.

Benefits

High lot-to-lot consistency
Increased sensitivity and higher affinity
Animal-free production

Suggested Working Concentration

ELISA	1:10,000-1:50,000
Flow Cyt	1:200-1:2000（Use at an assay dependent concentration）

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.