abcam

Product datasheet

Recombinant human CD19 protein (Fc Chimera Active) ab167709

4 Images

Description

Product name	Recombinant human CD19 protein (Fc Chimera Active)
Biological activity	Measured by its binding ability in a functional ELISA against immobilized FMC63mAb (0.2µg/well). The linear range is 0.15-1.25 µg/mL. Measured by its binding ability in a functional ELISA against immobilized CD19-Fc at 2 µg/ml (100 µl/well). The linear ranger of 0.04 - 0.75 µg/ml.
Purity	> 95 % SDS-PAGE.
Endotoxin level	< 0.100 Eu/µg
Expression system	HEK 293 cells
Accession	P15391
Protein length	Protein fragment
Animal free	No
Nature	Recombinant
Species	Human
Sequence	PEEPLVVKVE EGDNAVLQCL KGTSDGPTQQ LTWSRESPLK PFLKLSLGLP GLGIHMRPLA IWLFIFNVSQ QMGGFYLCQP GPPSEKAWQP GWTVNVEGSG ELFRWNVSDL GGLGCGLKNR SSEGPSSPSG KLMSPKLYVW AKDRPEIWEG EPPCLPPRDS LNQSLSQDLT MAPGSTLWLS CGVPPDSVSR GPLSWTHVHP KGPKSLLSLE LKDDRPARDM WVMETGLLLP RATAQDAGKY YCHRGNLTMS FHLEITARPV LWHWLLRTGG WK
Predicted molecular weight	56 kDa including tags
Amino acids	20 to 291
Tags	Fc tag C-Terminus
Additional sequence information	(AAH06338)

Specifications

Specifications

Our **Abpromise guarantee** covers the use of **ab167709** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications	Flow Cytometry SDS-PAGE Functional Studies
Form	Lyophilized
Additional notes	Endotoxin levels determined by the LAL method. After reconstitution, under sterile conditions, no activity loss observed after storage at -70°C for 3 months.

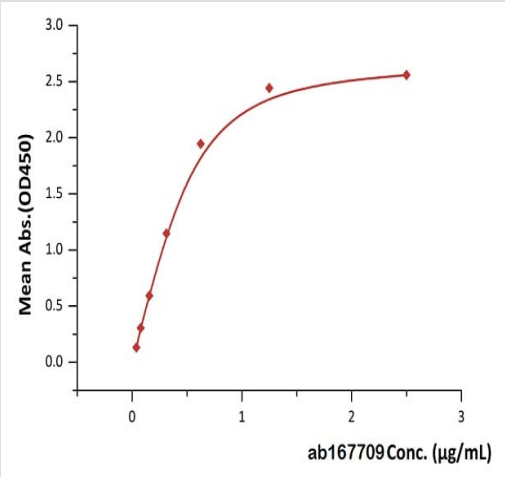
Preparation and Storage

Stability and Storage	Shipped at 4°C. Store at 4°C (stable for up to 12 months). Store at -20°C or -80°C. Avoid freeze / thaw cycle. For long term storage it is recommended to add a carrier protein on reconstitution (0.1% HSA or BSA). pH: 7.40 Constituents: PBS, 5% Trehalose Lyophilized from 0.22 µm filtered solution. This product is an active protein and may elicit a biological response in vivo, handle with caution.
Reconstitution	Reconstitute with sterile deionized water to a concentration of 250 µg/ml.

General Info

Function	Assembles with the antigen receptor of B lymphocytes in order to decrease the threshold for antigen receptor-dependent stimulation.
Involvement in disease	Defects in CD19 are the cause of immunodeficiency common variable type 3 (CVID3) [MIM:613493]; also called antibody deficiency due to CD19 defect. CVID3 is a primary immunodeficiency characterized by antibody deficiency, hypogammaglobulinemia, recurrent bacterial infections and an inability to mount an antibody response to antigen. The defect results from a failure of B-cell differentiation and impaired secretion of immunoglobulins; the numbers of circulating B cells is usually in the normal range, but can be low.
Sequence similarities	Contains 2 Ig-like C2-type (immunoglobulin-like) domains.
Post-translational modifications	Phosphorylated on serine and threonine upon DNA damage, probably by ATM or ATR. Phosphorylated on tyrosine following B-cell activation.
Cellular localization	Membrane.

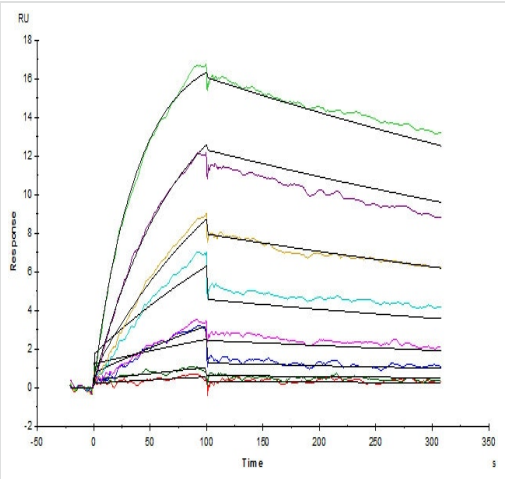
Images



Functional Studies - Recombinant human CD19 protein (Fc Chimera Active) (ab167709)

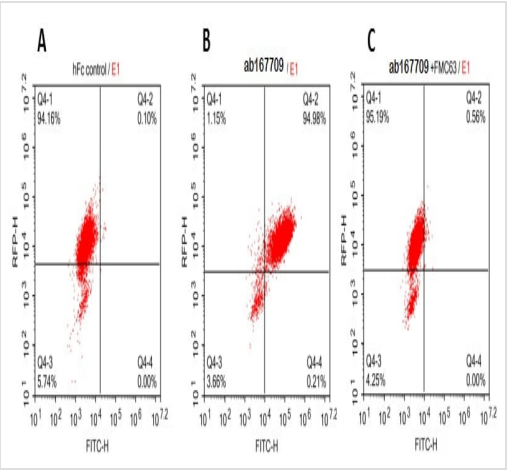
Immobilized FMC63 at 1 µg/mL (100 µL/well) binds ab167709.

Linear range: 0.039-0.625 µg/mL (QC tested).



Functional Studies - Recombinant human CD19 protein (Fc Chimera Active) (ab167709)

ab167709, captured on CM5 chip via Anti-Human IgG Fc antibodies surface, binds FMC63 MAb (mouse IgG2a) with an affinity constant of 3.88 nM, as determined in a SPR assay (Biacore T200) (Routinely tested).



Flow Cytometry - Recombinant human CD19 protein (Fc Chimera Active) (ab167709)

293 cells were transfected with FCM63-scFv and RFP tag.

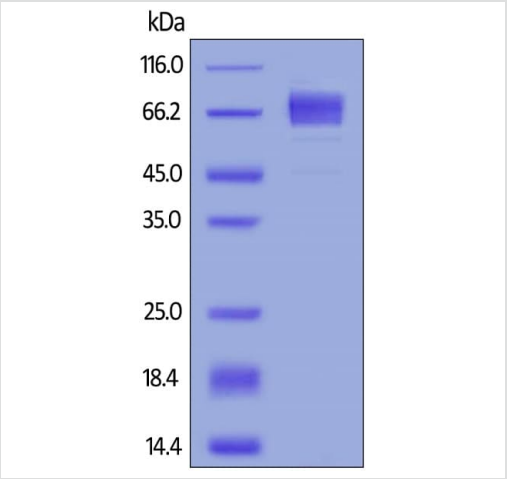
2x105 of the cells were first incubated with

A. Human Fc tag control.

B. 10 µg/ml of ab167709.

C. 10 µg/ml of ab167709 and FMC63 (Mouse anti-CD19 antibody).

The FITC anti-human IgG Fc was used to analyse with FACS. RFP was used to evaluate CAR (FMC63-scFv) expression and FITC was used to evaluate the binding activity of recombinant human CD19, Fc Tag, low endotoxin.



SDS-PAGE - Recombinant human CD19 protein (Fc Chimera Active) (ab167709)

Reduced ab167709 on SDS0PAGE, stained overnight with Coomassie Blue.

Purity of protein > 95%

The protein migrates as 56-90 kDa under reducing condition due to glycosylation.

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