abcam

Product datasheet

PE Anti-CD59 antibody [YTH53.1] ab33165

Overview

Product name	PE Anti-CD59 antibody [YTH53.1]
Description	PE Rat monoclonal [YTH53.1] to CD59
Host species	Rat
Conjugation	PE. Ex: 488nm, Em: 575nm
Tested applications	**Suitable for:** Flow Cyt
Species reactivity	**Reacts with:** Human
Immunogen	Tissue, cells or virus corresponding to Human CD59. Human Peripheral Blood T cells.
General notes	This clone enhances antibody mediated lysis by homologous complement and reacts with GPI linked antigen of 18-20kD size which is broadly expressed on human leucocytes and erythrocytes. The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C.
Storage buffer	pH: 7.20 Preservative: 0.09% Sodium azide Constituents: PBS, 1% BSA
Purification notes	ab33165 was purified by ion exchange chromatography.
Primary antibody notes	This clone enhances antibody mediated lysis by homologous complement and reacts with GPI linked antigen of 18-20kD size which is broadly expressed on human leucocytes and erythrocytes.
Clonality	Monoclonal
Clone number	YTH53.1
Myeloma	Y3/Ag1.2.3

Isotype	IgG2b

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab33165 in the following tested applications.

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

Application	Abreviews	Notes
Flow Cyt		Use at an assay dependent concentration. We do not recommend using this antibody in lysed whole blood techniques due to inhibition of staining caused by CD59 expression on erythrocytes.

Target

Function	Potent inhibitor of the complement membrane attack complex (MAC) action. Acts by binding to the C8 and/or C9 complements of the assembling MAC, thereby preventing incorporation of the multiple copies of C9 required for complete formation of the osmolytic pore. This inhibitor appears to be species-specific. Involved in signal transduction for T-cell activation complexed to a protein tyrosine kinase. The soluble form from urine retains its specific complement binding activity, but exhibits greatly reduced ability to inhibit MAC assembly on cell membranes.
Involvement in disease	Defects in CD59 are the cause of CD59 deficiency (CD59D) [MIM:612300].
Sequence similarities	Contains 1 UPAR/Ly6 domain.
Post-translational modifications	N- and O-glycosylated. The N-glycosylation mainly consists of a family of biantennary complex-type structures with and without lactosamine extensions and outer arm fucose residues. Also significant amounts of triantennary complexes (22%). Variable sialylation also present in the Asn-43 oligosaccharide. The predominant O-glycans are mono-sialylated forms of the disaccharide, Gal-beta-1,3GalNAc, and their sites of attachment are probably on Thr-76 and Thr-77. The GPI-anchor of soluble urinary CD59 has no inositol-associated phospholipid, but is composed of seven different GPI-anchor variants of one or more monosaccharide units. Major variants contain sialic acid, mannose and glucosamine Sialic acid linked to an N-acetylhexosamine-galactose arm is present in two variants. Glycated. Glycation is found in diabetic subjects, but only at minimal levels in nondiabetic subjects. Glycated CD59 lacks MAC-inhibitory function and confers to vascular complications of diabetes.
Cellular localization	Cell membrane. Secreted. Soluble form found in a number of tissues.

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