ARG62898
anti-CD59 antibody [MEM-129] (azide free)

Package: 100 µg
Store at: -20°C

Summary

Product Description	Azide free Mouse Monoclonal antibody [MEM-129] recognizes CD59
Tested Reactivity	Hu, Pig
Tested Application	FACS, FuncSt
Specificity	The clone MEM-129 reacts with CD59 (Protectin), a 18-20 kDa glycosylphosphatidylinositol (GPI)-anchored glycoprotein expressed on all hematopoietic cells; it is widely present on cells in all tissues.
Host	Mouse
Clonality	Monoclonal
Clone	MEM-129
Isotype	IgM
Target Name	CD59
Species	Human
Immunogen	Human peripheral blood lymphocytes
Conjugation	Un-conjugated
Alternate Names	EJ30; MIRL; Membrane attack complex inhibition factor; CD antigen CD59; EJ16; Membrane inhibitor of reactive lysis; MIC11; EL32; HRF20; HRF-20; MEM43 antigen; MIN1; MIN2; MIN3; 1F5 antigen; 1F5; MACIF; MAC-IP; MSK21; Protectin; G344; p18-20; CD59 glycoprotein; MEM43; MAC-inhibitory protein; 16.3A5; 20 kDa homologous restriction factor

Application Instructions

Application table

Application	Dilution
FACS	1 - 4 µg/ml
FuncSt	Assay-dependent

Application Note: Functional studies: The clone MEM-129 activates T cells.
* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Properties

Form	Liquid
Purification	Purified from ascites by thiophilic adsorption-affinity chromatography and size-exclusion chromatography.
Purity	> 95% (by SDS-PAGE)
Buffer	HEPES buffered saline (HBS), (pH 7.0)

Concentration	1 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Database links	GeneID: 397347 Pig GeneID: 966 Human Swiss-port # O62680 Pig Swiss-port # P13987 Human
Gene Symbol	CD59
Gene Full Name	CD59 molecule, complement regulatory protein
Background	CD59 (Protectin) is a small (18-20 kDa) GPI-anchored ubiquitously expressed inhibitor of the membrane attack complex (MAC). It is thus the key regulator that preserves the autologous cells from terminal effector mechanism of the complement cascade. CD59 associates with C5b-8 complex and thereby counteracts appropriate formation of cytolytic pore within the plasma membrane. CD59 is also an low-affinity ligand of human CD2 and causes T cell costimulation.
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. [UniProt]
Research Area	Cell Biology and Cellular Response antibody; Developmental Biology antibody; Immune System antibody; Signaling Transduction antibody
Calculated Mw	14 kDa
PTM	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.