

11-234-C100

## Monoclonal Antibody to CD59 Purified Antibody (0.1 mg)

Clone: MEM-43/5

**Isotype:** Mouse IgG2b

**Specificity:** The antibody MEM-43/5 reacts with well defined epitope (around L33) on CD59

(Protectin), a 18-20 kDa glycosylphosphatidylinositol (GPI)-anchored glycoprotein expressed on all hematopoietic cells; it is widely present on cells in all tissues.

The MEM-43/5 does not compete with most other CD59 antibodies.

HLDA V; WS Code AS S012

Regulatory Status: RUO

**Immunogen:** Thymocytes and T lymphocytes

Species Reactivity: Human, Mouse

**Application:** Western Blotting

Recommended dilution: 1-2 µg/ml Positive control: mouse spleen

Application note: Non-reducing conditions.

Flow Cytometry

Recommended dilution:1 µg/ml

Positive control: blood Immunoprecipitation

Immunohistochemistry (paraffin sections)

Recommended dilution: 5 µg/ml

**Purity:** > 95% (by SDS-PAGE)

**Purification:** Purified by protein-A affinity chromatography

Concentration: 1 mg/ml

Storage Buffer: Phosphate buffered saline (PBS) with 15 mM sodium azide, approx. pH 7.4

Storage / Stability: Store at 2-8°C. Do not freeze. Do not use after expiration date stamped on vial

label.

Expiration: See vial label

Lot Number: See vial label

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.



## PRODUCT DATA SHEET

## References:

\*Meri S, Morgan BP, Davies A, Daniels RH, Olavesen MG, Waldmann H, Lachmann PJ: Human protectin (CD59), an 18,000-20,000 MW complement lysis restricting factor, inhibits C5b-8 catalysed insertion of C9 into lipid bilayers. Immunology. 1990 Sep;71(1):1-9.

\*Rooney IA, Davies A, Griffiths D, Williams JD, Davies M, Meri S, Lachmann PJ, Morgan BP: The complement-inhibiting protein, protectin (CD59 antigen), is present and functionally active on glomerular epithelial cells. Clin Exp Immunol. 1991 Feb;83(2):251-6.

\*Menu E, Tsai BC, Bothwell AL, Sims PJ, Bierer BE: CD59 costimulation of T cell activation. CD58 dependence and requirement for glycosylation. J Immunol. 1994 Sep 15;153(6):2444-56.

\*Baalasubramanian S, Harris CL, Donev RM, Mizuno M, Omidvar N, Song WC, Morgan BP: CD59a is the primary regulator of membrane attack complex assembly in the mouse. J Immunol. 2004 Sep 15;173(6):3684-92.

\*Leukocyte Typing V., Schlossman S. et al. (Eds.), Oxford University Press (1995). \*Bodian DL, Davis SJ, Morgan BP, Rushmere NK: Mutational analysis of the active site and antibody epitopes of the complement-inhibitory glycoprotein, CD59. J Exp Med. 1997 Feb 3;185(3):507-16.

\*Drbal K, Moertelmaier M, Holzhauser C, Muhammad A, Fuertbauer E, Howorka S, Hinterberger M, Stockinger H, Schütz GJ: Single-molecule microscopy reveals heterogeneous dynamics of lipid raft components upon TCR engagement. Int Immunol. 2007 May;19(5):675-84.

\*Stulnig TM, Berger M, Sigmund T, Stockinger H, Horejsí V, Waldhäusl W: Signal transduction via glycosyl phosphatidylinositol-anchored proteins in T cells is inhibited by lowering cellular cholesterol. J Biol Chem. 1997 Aug 1;272(31):19242-7.

Unless indicated otherwise, all products are For Research Use Only and not for diagnostic or therapeutic use. Not for resale or transfer either as a stand-alone product or as a component of another product without written consent of EXBIO. EXBIO will not be held responsible for patent infringement or other violations that may occur with the use of our products. All orders are accepted subject to EXBIO's term and conditions which are available at www.exbio.cz.