

A6-230-T100

## Monoclonal Antibody to CD55 Alexa Fluor® 647 conjugated (100 tests)

Clone: MEM-118

Isotype: Mouse IgM

**Specificity:** The antibody MEM-118 recognizes an epitope in SCR4 domain of CD55 (Decay accelerating factor, DAF), a 60-70 kDa glycosylphosphatidylinositol (GPI)-anchored single chain glycoprotein. CD55 is widely expressed on hematopoietic and on many non-hematopoietic cells; it is weakly present on NK cells.

HLDA V; WS Code AS S016

Regulatory Status: RUO

Immunogen: HPB-ALL human T cell line

Species Reactivity: Human, Non-Human Primates

**Preparation:** The purified antibody is conjugated with Alexa Fluor® 647 under optimum conditions. The conjugate is purified by size-exclusion chromatography and adjusted for direct use. No reconstitution is necessary.

**Storage Buffer:** The reagent is provided in stabilizing Tris buffered saline (TBS) solution containing 15 mM sodium azide.

**Storage / Stability:** Store in the dark at 2-8°C. Do not freeze. Avoid prolonged exposure to light. Do not use after expiration date stamped on vial label.

**Usage:** The reagent is designed for Flow Cytometry analysis of human blood cells using 4  $\mu$ l reagent / 100  $\mu$ l of whole blood or 10<sup>6</sup> cells in a suspension. The content of a vial (0.4 ml) is sufficient for 100 tests.

**Expiration:** See vial label

Lot Number: See vial label

**Background:** CD55 (decay-accelerating factor, DAF) is a GPI-anchored membrane glycoprotein that protects autologous cells from classical and alternative pathway of complement cascade. Bidirectional interactions between CD55 and CD97 are involved in T cell regulation and CD55 can still regulate complement when bound to CD97. In tumours, besides protection agains complement, CD55 promotes neoangiogenesis, tumorigenesis, invasiveness and evasion of apoptosis.

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References:

\*Miwa T, Maldonado MA, Zhou L, Sun X, Luo HY, Cai D, Werth VP, Madaio MP, Eisenberg RA, Song WC: Deletion of decay-accelerating factor (CD55) exacerbates autoimmune disease development in MRL/lpr mice. Am J Pathol. 2002 Sep;161(3):1077-86.

\*Mikesch JH, Buerger H, Simon R, Brandt B: Decay-accelerating factor (CD55): a versatile acting molecule in human malignancies. Biochim Biophys Acta. 2006 Aug;1766(1):42-52.

\*Abbott RJ, Spendlove I, Roversi P, Fitzgibbon H, Knott V, Teriete P, McDonnell JM, Handford PA, Lea SM: Structural and functional characterization of a novel T cell receptor co-regulatory protein complex, CD97-CD55. J Biol Chem. 2007 Jul 27;282(30):22023-32.

\*VanLandingham JW, Cekic M, Cutler S, Hoffman SW, Stein DG: Neurosteroids reduce inflammation after TBI through CD55 induction. Neurosci Lett. 2007 Sep 25;425(2):94-8.

\*Miwa T, Maldonado MA, Zhou L, Yamada K, Gilkeson GS, Eisenberg RA, Song WC: Decay-accelerating factor ameliorates systemic autoimmune disease in MRL/lpr mice via both complement-dependent and -independent mechanisms. Am J Pathol. 2007 Apr;170(4):1258-66.

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