OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850
UNITED STATES
Phone: +1-888-267-4436
Fax: +1-301-340-8606
techsupport@origene.com

OriGene Technologies GmbH
Schillerstr. 5
32052 Herford
GERMANY
Phone: +49-5221-34606-0
Fax: +49-5221-34606-11
info-de@origene.com

SM3030B Monoclonal Antibody to CD55 / DAF - Biotin

Alternate names: Complement decay-accelerating factor

Quantity: 0.1 mg

Concentration: 1.0 mg/ml

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.

Uniprot ID: P08174

NCBI: 9606

Host / Isotype: Mouse / IgM

Clone: MEM-118

Immunogen: HPB-ALL human T cell line

Format: **State:** Liquid purified Ig fraction
Buffer System: Tris buffered saline (TBS) with 15 mM sodium azide, approx. pH 8.0
Label: Biotin – Conjugated with Biotin-LC-NHS under optimum conditions.

Applications: **Immunofluorescence analysis by Flow Cytometry:** 1/500 as a starting point.
Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity: The antibody 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.

Species Reactivity: **Tested:** Human, Non-Human Primates

Storage: Store the antibody undiluted at 2 - 8 °C. DO NOT FREEZE!
Shelf life: one year from despatch.

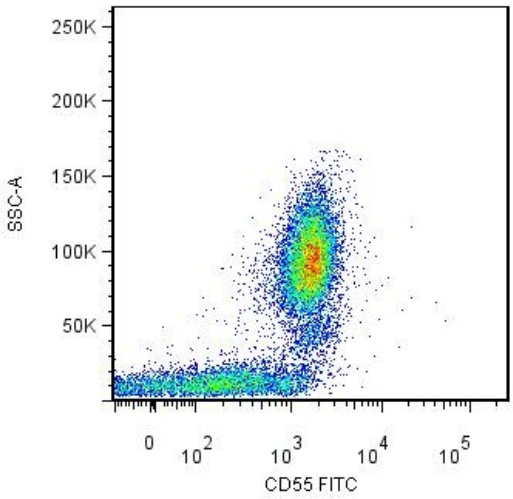
General Readings:

1. Miwa T, Maldonado MA, Zhou L, Sun X, Luo HY, Cai D, et al. Deletion of decay-accelerating factor (CD55) exacerbates autoimmune disease development in MRL/lpr mice. Am J Pathol. 2002 Sep;161(3):1077-86. PubMed PMID: 12213736.
2. 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. Epub 2006 May 9. PubMed PMID: 16784816.
3. Abbott RJ, Spendlove I, Roversi P, Fitzgibbon H, Knott V, Teriete P, et al. 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. Epub 2007 Apr 20. PubMed PMID: 17449467.
4. 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. Epub 2007 Aug 25. PubMed PMID: 17826908.
5. Miwa T, Maldonado MA, Zhou L, Yamada K, Gilkeson GS, Eisenberg RA, et al. 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. PubMed PMID: 17392165.
6. Leukocyte Typing V., Schlossman S. et al. (Eds.), Oxford University Press (1995).
7. Angelisová P, Drbal K, Horejsí V, Cerný J. Association of CD10/neutral endopeptidase 24.11 with membrane microdomains rich in glycosylphosphatidylinositol-anchored proteins and Lyn kinase. Blood. 1999 Feb 15;93(4):1437-9. PubMed PMID: 10075459.

Pictures:

Surface staining of Human peripheral blood leukocytes by Mouse monoclonal anti-CD55 antibody MEM-118.



Surface staining of human peripheral blood cells with anti-CD55 (**MEM-118**) PE.