Leinco Technologies, Inc.
excellence in early discovery research™

Anti-Mouse CD45.2 [Clone 104.2] - CF®488

Hybridoma Monoclonal Antibody

Product Information

Product No.:	C2888
Clone:	104.2
Isotype:	Mouse Mouse IgG2a k

Product Description

Specificity:
104.2 activity is directed against mouse CD45.2.

Antigen Distribution:
CD45.2 is present on the surface of all mouse leukocytes except in strains bearing the CD45.1 allele. Mouse strains producing CD45.2 include A, AKR, BALB/c, CBA/Ca, CBA/J, C3H/He, C57BL, C57BR, C57L, C58, DBA/1, DBA/2, NZB, SWR, and 129.

Background:
CD45, also known as tyrosine phosphatase receptor type C (PTPRC), is a transmembrane protein produced as two allelic variants: CD45.1 and CD45.2[1,2]. CD45 functions as an essential regulator of signal transduction pathways in immune cells and is one of the most abundant cell surface glycoproteins[3]. CD45 is an essential positive regulator of antigen receptor signaling. Mice deficient in CD45 develop severe-combined immunodeficiency, have abnormal thymic development due to enhanced basal apoptosis, and have signaling abnormalities in B cells. Additionally, loss of CD45 affects microglia activation in a mouse model of Alzheimer's disease[4]. CD45 functions as a positive and negative regulator of Src-family kinases and also functions as a Janus kinase tyrosine phosphatase in the regulation of cytokine receptor signaling. As such, CD45 is involved in the differentiation, proliferation, and antiviral immunity of haematopoietic cells.

Clone 104.2 was generated by injecting thymocytes and splenocytes from B10.S mice into SJL mice[5]. Splenocytes from the SJL mice were then fused with NS-1 cells to produce hybridomas. Clone 104.2 does not bind the CD45.1 allele[2]. Clone 104.2 is used as a murine pan-leukocytes marker for flow cytometry. CD45 is used as a panhematopoietic cell marker[1].

Known Reactivity Species:
Mouse

Format:
CF®488

Products are for research use only. Not for use in diagnostic or therapeutic procedures.

Immunogen:
B10.S mouse thymocytes and splenocytes

Formulation
This CF®488 conjugate is formulated in 0.01 M phosphate buffered saline (150 mM NaCl) PBS pH 7.4, 1% BSA and 0.09% sodium azide as a preservative.

Storage and Stability
This CF®488 conjugate is stable when stored at 2-8°C, protected from light. **Do not freeze.**

Applications
Applications and Recommended Usage (Quality Tested By Leinco):

FC,
IF

Country of Origin
USA

References
1 Kalari Kandy RR, Fan X, Cao X. Immunohorizons. 7(11):755-759. 2023.
2 Faulhaber LD, D'Costa O, Shih AY, et al. Neurophotonics. 9(3):031917. 2022.
3 Hermiston ML, Xu Z, Weiss A. Annu Rev Immunol. 21:107-137. 2003.
4 Irie-Sasaki J, Sasaki T, Penninger JM. Curr Top Med Chem. 3(7):783-796. 2003.
5 Shen FW (1981) Monoclonal antibodies to mouse lymphocyte differentiation alloantigens. Monoclonal Antibodies and T-Cell Hybridomas: Perspectives and Technical Advances. Hämmerling GJ, Hämmerling U and Kearney JF, editors. Elsevier/North-Holland Biomedical Press, Amsterdam. 25-31 (ISBN: 9780444803511)
6 Yakura H, Shen FW, Bourcet E, et al. J Exp Med. 157(4):1077-1088. 1983.

Products are for research use only. Not for use in diagnostic or therapeutic procedures.

410 Axminister Dr, St. Louis, MO 63026 (800) 538-1145 leincoglobal@leinco.com