SONY

Product Data Sheet

Alexa Fluor® 488 anti-rat CD45

Catalog # / Size: 1611050 / 100 µg

Clone: OX-1

Isotype: Mouse IgG1, κ

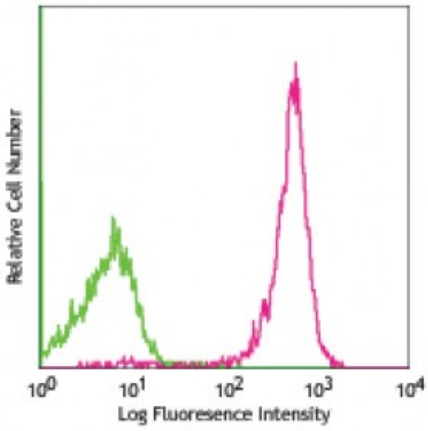
Immunogen: Enriched glycoprotein fraction from Wistar rat thymocytes

Reactivity: Rat

Preparation: The antibody was purified by affinity chromatography, and conjugated with Alexa Fluor® 488 under optimal conditions.

Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.

Concentration: 0.5



LOU rat splenocytes stained with OX-1 Alexa Fluor® 488

Applications:

Applications: Immunofluorescence

Recommended Usage: Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, the suggested use of this reagent is ≤0.25 microg per million cells in 100 microL volume. It is recommended that the reagent be titrated for optimal performance for each application.

* Alexa Fluor® 488 has a maximum emission of 519 nm when it is excited at 488 nm.

Application Notes: Additional reported applications (for the relevant formats) include: immunoprecipitation1, immunofluorescence microscopy (acetone fixed, ammonium-thiocyanate separated epidermal sheets)2, immunohistochemistry of acetone3-, isopentane-4, PLP5-, and n-hexane[6] fixed frozen sections and paraffin-embedded sections[7,8], and partial inhibition of NK cell lysis of syngeneic tumor cell lines1.

Application References:

1. Giezeman-Smits KM, *et al.* 1999. *J. Immunol.* 163:71. (IP)
2. Elbe A, *et al.* 1994. *J. Invest. Dermatol.* 102:74. (IF)
3. Kouwenhoven E, *et al.* 2001. *Kidney Int.* 59:1142. (IHC)
4. Martin A, *et al.* 1995 *Clin. Exp. Immunol.* 22:283. (IHC)
5. Sayegh MH, *et al.* 1995 *J. Exp. Med.* 181:186. (IHC)
6. Morioka Y, *et al.* 2000. *Kidney Int.* 60:2192. (IHC)
7. Ng YY, *et al*. 2005. *Kidney Int*. 94:S83. (IHC-P)
8. Huang XR, *et al*. 2003. *JASN*. 14:1738. (IHC-P)

Description: CD45 is a 180-220 kD protein also known as leukocyte common antigen (LCA). It is a protein tyrosine phosphatase with multiple isoforms differing as a result of alternative splicing of the extracellular domain and glycosylation. CD45 is expressed on all hematopoietic cells except erythrocytes and platelets; isoform expression depends on cell type, activation state, and cell maturation. CD45 functions in signal transduction through T and B cell antigen receptors. CD45 has been shown to interact with various proteins including galectin-1, CD2, CD3, and CD4. The OX-1 antibody has been shown to partially inhibit NK cell-mediated lysis

of syngeneic tumor cells *in vitro*.

Antigen References:

1. Sunderland CA, *et al.* 1979. *Eur. J. Immunol.* 9:155.
2. Woolett GR, *et al.* 1985. *Eur. J. Immunol.*. 15:168.