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Product Data Sheet

Alexa Fluor® 647 anti-rat CD90/mouse CD90.1 (Thy-1.1)

Catalog # / Size: 202507 / 25 µg
202508 / 100 µg

Clone: OX-7

Isotype: Mouse IgG1, κ

Immunogen: Rat thymocyte Thy-1 antigen

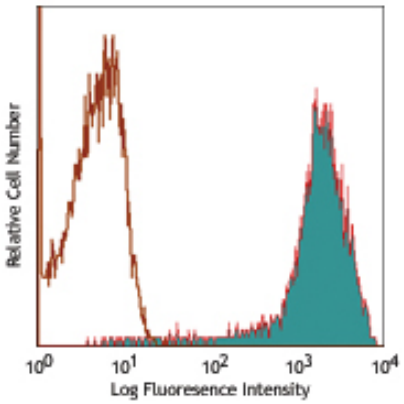
Reactivity: Rat, Mouse (AKR/J and PL mouse strains), **Cross-Reactivity:** Rabbit (Lapine), Guinea Pig

Preparation: The antibody was purified by affinity chromatography, and conjugated with Alexa Fluor® 647 under optimal conditions. The solution is free of unconjugated Alexa Fluor® 647.

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

Concentration: 0.5 mg/ml

Storage: The antibody solution should be stored undiluted at 4°C and protected from prolonged exposure to light. **Do not freeze.**



LOU rat thymocytes stained with OX-7 Alexa Fluor® 647

Applications:

Applications: FC - *Quality tested*
IHC , IF - *Reported in the literature*

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

* Alexa Fluor® 647 has a maximum emission of 668 nm when it is excited at 633 nm / 635 nm.
** Alexa Fluor® 647 is a registered trademark of Molecular Probes, Inc. Alexa Fluor® 647 dye antibody conjugates are sold under license from Molecular Probes, Inc. for research use only, except for use in combination with microarrays and high content screening, and are covered by pending and issued patents.

Application Notes: Additional reported applications (for the relevant formats) include: immunohistochemistry[1] of acetone-fixed frozen sections and zinc-fixed paraffin-embedded sections, immunoprecipitation[2], Western blotting[2], *in vitro* activation of leukocytes[3], induction of endothelial cell permeability[4], induction of glomerulonephritis[5] *in vivo*.

Application References:
1. Hermans MHA, *et al.* 1991. *J. Histochem. Cytochem.* 39:1627. (IHC)
2. Jeng CJ, *et al.* 1998. *J. Cell Biol.* 140:685. (IP, WB)
3. Nakashima I, *et al.* 1991. *J. Immunol.* 147:1153.
4. Ishizu A, *et al.* 1995. *Int. Immunol.* 7:1939.
5. Eitner F. 1997. *Kidney. Int.* 51:69.
6. Kawachi H, *et al.* 1992. *Clin. Exp. Immunol.* 88:399.
7. Dyer KD, *et al.* 2007. *J. Immunol.* 179:1693. (FC) PubMed
8. Hiramatsu Y, *et al.* 2010. *J. Immunol.* 87:703. (FC) PubMed

Description: CD90, also known as Thy-1, is a 28-30 kD GPI-linked membrane glycoprotein. It is a member of the immunoglobulin superfamily and has been shown to interact with CD45 in signal transduction during lymphocyte proliferation and differentiation. CD90 is expressed on hematopoietic stem cells, neurons, thymocytes, peripheral T cells, fibroblasts, stromal cells. The OX-7 antibody reacts with rat CD90 and mouse CD90.1 (Thy-1.1) (which is expressed by mouse strains of AKR/J, PL, and FVB/N), but not mouse CD90.2. This antibody has been reported to induce leukocyte activation, vascular permeability, induce apoptosis in glomerular mesangial cells, and induce glomerulonephritis *in vivo*.

Antigen References:
1. Campbell DG, *et al.* 1981. *Biochem. J.* 195:15.
2. Hosseinzadeh H, *et al.* 1993. *J. Immunol.* 150:1670.

Related Products:

Product	Clone	Application
Cell Staining Buffer		FC, ICC, ICFC
Alexa Fluor® 647 Mouse IgG1, κ Isotype Ctrl (FC)	MOPC-21	FC, IF

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