

Anti-Rat CD90 Antibody, Clone OX-7, Alexa Fluor® 488

Antibodies

Mouse monoclonal IgG1 antibody against mouse, rat, guinea pig CD90/CD90.1, Alexa Fluor® 488-conjugated

Catalog #60024AD	100 µg	0.5 mg/mL
#60024AD.1	25 µg	0.5 mg/mL



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TOLL FREE PHONE 1 800 667 0322 • PHONE +1 604 877 0713

INFO@STEMCELL.COM • TECHSUPPORT@STEMCELL.COM

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Product Description

The OX-7 antibody reacts with rat CD90 (Thy-1) and mouse CD90.1 (Thy-1.1), the latter being an allelic form of CD90 expressed by mouse strains AKR/J, PL, and FVB/N. The OX-7 antibody does not react with CD90.2, which is expressed by many mouse strains, including CBA and BALB/c. CD90 is a GPI-linked membrane glycoprotein and member of the immunoglobulin superfamily. The 25 kDa core protein is N-glycosylated at three sites, giving rise to molecules with a range of molecular masses (25 - 37 kDa). In the rat, CD90 is expressed by several cell types, including hematopoietic stem cells, immature B cells, thymocytes and neurons. In mouse strains expressing CD90.1, it is found on early-stage hematopoietic cells in the bone marrow, thymocytes, and circulating mature T cells. The OX-7 antibody has been reported to induce leukocyte activation, glomerular nephritis, apoptosis in glomerular mesangial cells, and vascular permeability.

Target Antigen Name:	CD90/CD90.1
Alternative Names:	Thy-1, Thy-1.1
Gene ID:	21838/24832
Species Reactivity:	Mouse (AKR/J and PL mouse strains), Rat, Guinea Pig, Rabbit
Host Species:	Mouse (BALB/c)
Clonality:	Monoclonal
Clone:	OX-7
Isotype:	IgG1, kappa
Immunogen:	Rat thymocyte CD90 (Thy-1) antigen
Conjugate:	Alexa Fluor® 488

Applications

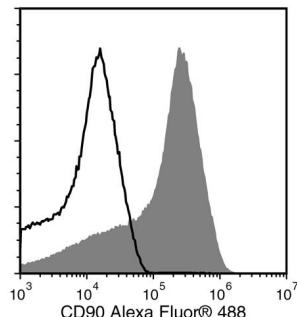
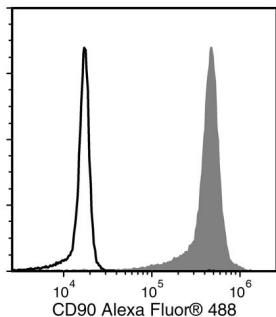
Verified:	FC
Reported:	FC, IF, IHC
Special Applications:	This antibody clone has been verified for purity assessments of cells isolated from compatible mouse strains with EasySep™ kits, including EasySep™ Mouse T Cell Enrichment Kit (Catalog #19751) and EasySep™ Mouse T Cell Isolation Kit (Catalog #19851).

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FC: Flow cytometry; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IP: Immunoprecipitation; WB: Western blotting

Properties

Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide
Purification:	The antibody was purified by affinity chromatography and conjugated with Alexa Fluor® 488 under optimal conditions. The solution is free of unconjugated Alexa Fluor® 488.
Stability and Storage:	Product stable at 2 - 8°C when stored undiluted. Do not freeze. Protect product from prolonged exposure to light. For product expiry date, please request a lot-specific Certificate of Analysis from techsupport@stemcell.com .
Directions for Use:	For flow cytometry the suggested use of this antibody is ≤0.25 µg per 1 x 10 ⁶ cells in 100 µl volume. It is recommended that the antibody be titrated for optimal performance for each application.

Data

A**B**

(A) Flow cytometry analysis of Sprague-Dawley rat brain cells labeled with Anti-Rat CD90 Antibody, Clone OX-7, Alexa Fluor® 488 (filled histogram) or a mouse IgG1, kappa Alexa Fluor® 488 isotype control antibody (solid line histogram).

(B) Flow cytometry analysis of Sprague-Dawley rat thymocytes labeled with Anti-Rat CD90 Antibody, Clone OX-7, Alexa Fluor® 488 (filled histogram) or a mouse IgG1, kappa Alexa Fluor® 488 isotype control antibody (solid line histogram).

Related Products

PRODUCT NAME	CATALOG #	SIZE
Anti-Rat CD90 Antibody, Clone OX-7	60024	500 µg
Anti-Rat CD90 Antibody, Clone OX-7, PE	60024PE	200 µg
Anti-Rat CD90 Antibody, Clone OX-7, PE	60024PE.1	50 µg
Anti-Rat CD90 Antibody, Clone OX-7, Alexa Fluor® 488	60024AD	100 µg
Anti-Rat CD90 Antibody, Clone OX-7, Alexa Fluor® 488	60024AD.1	25 µg

References

1. Mason DW, Williams AF. The kinetics of antibody binding to membrane antigens in solution and at the cell surface. *Biochem J* 187(1): 1-20, 1980
2. Paul LC, et al. Thy-1.1 in glomeruli of rat kidneys. *Kidney Int* 25(5): 771-77, 1984 (Electron Microscopy, IHC)
3. Hermans MH, Opstelten D. In situ visualization of hemopoietic cell subsets and stromal elements in rat and mouse bone marrow by immunostaining of frozen sections. *J Histochem Cytochem* 39(12): 1627-34, 1991 (IHC)
4. Nakashima I, et al. Evidence of synergy between Thy-1 and CD3/TCR complex in signal delivery to murine thymocytes for cell death. *J Immunol* 147(4): 1153-62, 1991 (FA)
5. Kawachi H, et al. Epitope-specific induction of mesangial lesions with proteinuria by a MoAb against mesangial cell surface antigen. *Clin Exp Immunol* 88(3): 399-404, 1992 (WB)
6. Ishizu A, et al. Thy-1 induced on rat endothelium regulates vascular permeability at sites of inflammation. *Int Immunol* 7(12): 1939-47, 1995 (IP)
7. Dráberová L, et al. Thy-1-mediated activation of rat mast cells: the role of Thy-1 membrane microdomains. *Immunology* 87(1): 141-48, 1996 (FA, WB)
8. Jeng CJ, et al. Thy-1 is a component common to multiple populations of synaptic vesicles. *J Cell Biol* 140(3): 685-98, 1998 (IP, WB)
9. Dyer KD, et al. Eosinophils from lineage-ablated Delta dblGATA bone marrow progenitors: the dblGATA enhancer in the promoter of GATA-1 is not essential for differentiation ex vivo. *J Immunol* 179: 1693-99, 2007 (FC)
10. Hiramatsu Y, et al. c-Maf activates the promoter and enhancer of the IL-21 gene, and TGF-beta inhibits c-Maf-induced IL-21 production in CD4+ T cells. *J Immunol* 87(4): 703-12, 2010 (FC)

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