Anti-Rat CD90 Antibody, Clone OX-7

Antibodies

Mouse monoclonal IgG1 antibody against mouse, rat, guinea pig CD90/CD90.1, unconjugated

Catalog #60024

500 µg 0.5 mg/mL

STEMCELL™ TECHNOLOGIES
Scientists Helping Scientists™ | WWW.STEMCELL.COM
TOLL FREE PHONE 1 800 667 0322 • PHONE +1 604 877 0713
INFO@STEMCELL.COM • TECHSUPPORT@STEMCELL.COM
FOR GLOBAL CONTACT DETAILS VISIT OUR WEBSITE

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:	Unconjugated

Applications

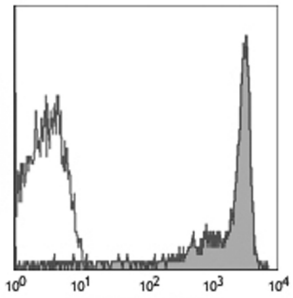
Verified:	FC
Reported:	FC, ICC, IF, IHC, IP, WB
Special Applications:	This antibody clone has been verified for purity assessments of cells isolated from compatible mouse strains with EasySep™ kits, including EasySep™ Mouse T Cell Enrichment Kit (Catalog #19751) and EasySep™ Mouse T Cell Isolation Kit (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.
Stability and Storage:	Product stable at 2 - 8°C when stored undiluted. Do not freeze. 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 ≤ 1.0 µg per 1 x 10e6 cells in 100 µL volume. It is recommended that the antibody be titrated for optimal performance for each application.

Data



CD90 FITC

Flow cytometry analysis of LOU rat thymocytes labeled with Anti-Rat CD90 Antibody, Clone OX-7, followed by anti-mouse IgG, FITC (filled histogram) or a mouse IgG1, kappa isotype control antibody followed by anti-mouse IgG, FITC (open 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)