

## APC anti-human CD90 (Thy1) Antibody

<b>Catalog# / Size</b>	328113 / 25 tests 328114 / 100 tests
<b>Clone</b>	5E10
<b>Workshop</b>	HCDM listed
<b>Other Names</b>	Thy-1, Thy1
<b>Isotype</b>	Mouse IgG1, κ
<b>Description</b>	CD90 is a 25-35 kD GPI-anchored protein, also known as Thy-1. It belongs to the Ig superfamily. Human CD90 is expressed on neuronal cells, a subset of CD34 <sup>+</sup> cells, a subset of fetal liver cells and fetal thymocytes, fibroblasts, activated endothelial cells, and some leukemia cell lines. CD34 <sup>+</sup> CD90 <sup>+</sup> cells are primitive hematopoietic stem cells. It has been reported that Thy-1 binds with β2 and β3 integrins and plays bimodal roles in the regulation of cell adhesion and neurite outgrowth, and inhibits hematopoietic stem cells proliferation and differentiation.

### Product Details

<b>Reactivity</b>	Human, African Green, Baboon, Cynomolgus, Pigtailed Macaque, Rhesus, Swine (Pig, Porcine)
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Mouse
<b>Immunogen</b>	HEL cells
<b>Formulation</b>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA (origin USA).
<b>Preparation</b>	The antibody was purified by affinity chromatography, and conjugated with APC under optimal conditions.
<b>Concentration</b>	Lot-specific (please contact <a href="#">technical support</a> for concentration and total µg amount, or use our <a href="#">Lookup tool</a> if you have a lot number.)
<b>Storage &amp; Handling</b>	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. <b>Do not freeze.</b>
<b>Application</b>	FC - Quality tested
<b>Recommended Usage</b>	Each lot of this antibody is quality control tested by <a href="#">immunofluorescent staining with flow cytometric analysis</a> . For flow cytometric staining, the suggested use of this reagent is 5 µl per million cells in 100 µl staining volume or 5 µl per 100 µl of whole blood.
<b>Excitation Laser</b>	Red Laser (633 nm)
<b>Application Notes</b>	Clone 5E10 recognizes an epitope on Thy-1 independent of its glycosylation, but is abolished under reducing conditions. <sup>4</sup> Additional reported (for the relevant formats) applications include: immunohistochemical staining of acetone-fixed frozen sections, immunoprecipitation <sup>1</sup> , and immunofluorescence <sup>3</sup> .
<b>Application References</b>	<ol style="list-style-type: none"> <li>1. Craig W, et al. 1993. J. Exp. Med. 177:1331. (IP)</li> <li>2. Gundlach CW 4th, et al. 2011. Bioconjug. Chem. 22:1706. (Pig Reactivity)</li> <li>3. Touboul C, et al. 2013. J. Transl. Med. 11:28. (IF)</li> <li>4. Bradley JE, et al. 2013. Lab Invest. 93:365. (Epitope)</li> <li>5. Donnenberg VS, et al. 2010. Cytometry B. Clin. Cytom. 5:287. (IHC)</li> </ol>
<b>(PubMed link indicates BioLegend citation)</b>	

#### Product Citations

1. Wei X, et al. 2010. Proc Natl Acad Sci U S A. 107:18874. PubMed
2. Gómez-Aristizábal A, et al. 2016. PLoS One. 11: 0147868. PubMed
3. Veraitch O, et al. 2017. Sci Rep. 7:42777. PubMed
4. Sluzalska K, et al. 2017. Sci Rep. 10.1038/s41598-017-14004-9. PubMed
5. Xiao X, et al. 2019. Cell Discov. 5:2. PubMed
6. Pellin D, et al. 2019. Nat Commun. 10:2395. PubMed
7. Wu Y, et al. 2019. Nat Med. 25:776. PubMed
8. Jungwirth N et al. 2018. Journal of molecular neuroscience : MN. 65(1):60-73 . PubMed
9. Montel-Hagen A et al. 2019. Cell stem cell. 24(3):376-389 . PubMed
10. Sluzalska KD, et al. 2017. Osteoarthritis Cartilage. 25:1890. PubMed

RRID AB\_893440 (BioLegend Cat. No. 328113)  
AB\_893431 (BioLegend Cat. No. 328114)

## Antigen Details

<b>Structure</b>	25-35 kD glycoprotein, Ig superfamily
<b>Distribution</b>	Subset of CD34 <sup>+</sup> hematopoietic stem cells, subset of fetal thymocytes, subset of fetal liver cells, fibroblast, activated endothelial cells, neurons and some leukemia cell lines
<b>Function</b>	Regulate hematopoiesis and neural cell growth, cell adhesion
<b>Ligand/Receptor</b>	$\beta$ 3 integrin, $\beta$ 2 integrin
<b>Cell Type</b>	Endothelial cells, Fibroblasts, Hematopoietic stem and progenitors, Leukemia, Mesenchymal Stem Cells, Neurons, Thymocytes
<b>Biology Area</b>	Immunology, Stem Cells
<b>Molecular Family</b>	CD Molecules
<b>Antigen References</b>	1. McKenzie JL, et al. 1981. J. Immunol. 126:843. 2. Avalos AM, et al. 2002. Biol. Res. 35:231. 3. Wetzel A, et al. 2004. J. Immunol. 172:3850.
<b>Gene ID</b>	7070

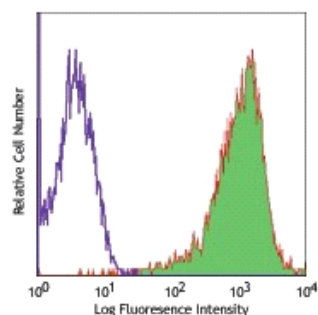
## Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

## Other Formats

PE/Cyanine7 anti-human CD90 (Thy1), Purified anti-human CD90 (Thy1), Biotin anti-human CD90 (Thy1), FITC anti-human CD90 (Thy1), PE anti-human CD90 (Thy1), PE/Cyanine5 anti-human CD90 (Thy1), Alexa Fluor® 647 anti-human CD90 (Thy1), PerCP/Cyanine5.5 anti-human CD90 (Thy1), Alexa Fluor® 700 anti-human CD90 (Thy1), Brilliant Violet 421™ anti-human CD90 (Thy1), Brilliant Violet 510™ anti-human CD90 (Thy1), Brilliant Violet 605™ anti-human CD90 (Thy1), Purified anti-human CD90 (Thy1) (Maxpar® Ready), APC/Cyanine7 anti-human CD90 (Thy1), PE/Dazzle™ 594 anti-human CD90 (Thy1), APC/Fire™ 750 anti-human CD90 (Thy1), Brilliant Violet 711™ anti-human CD90 (Thy1), TotalSeq™-A0060 anti-human CD90 (Thy1), Brilliant Violet 785™ anti-human CD90 (Thy1), Brilliant Violet 650™ anti-human CD90 (Thy1), TotalSeq™-C0060 anti-human CD90 (Thy1), TotalSeq™-B0060 anti-human CD90 (Thy1)

## Product Data



Human erythroleukemic cell line HEL stained with 5E10 APC

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