

## APC/Cyanine7 anti-human CD90 (Thy1) Antibody

<b>Catalog# / Size</b>	328131 / 25 tests 328132 / 100 tests
<b>Clone</b>	5E10
<b>Regulatory Status</b>	RUO
<b>Workshop</b>	HCDM listed
<b>Other Names</b>	Thy-1, Thy1
<b>Isotype</b>	Mouse IgG1, $\kappa$
<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 $\beta$ 2 and $\beta$ 3 integrins and plays bimodal roles in the regulation of cell adhesion and neurite outgrowth, and inhibits hematopoietic stem cells proliferation and differentiation.

### Product Details

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<b>Verified Reactivity</b>	Human
<b>Reported Reactivity</b>	African Green, Baboon, Cynomolgus, Pigtailed Macaque, Rhesus, Pig
<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 BSA (origin USA)
<b>Preparation</b>	The antibody was purified by affinity chromatography and conjugated with APC/Cyanine7 under optimal conditions.
<b>Concentration</b>	Lot-specific (to obtain lot-specific concentration, please enter the lot number in our <a href="#">Concentration and Expiration Lookup</a> or <a href="#">Certificate of Analysis</a> online tools.)
<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>	<a href="#">FC - Quality tested</a>
<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 $\mu$ l per million cells in 100 $\mu$ l staining volume or 5 $\mu$ l per 100 $\mu$ l 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>Additional Product Notes</b>	BioLegend is in the process of converting the name APC/Cy7 to APC/Cyanine7. The dye molecule remains the same, so you should expect the same quality and performance from our APC/Cyanine7 products. Please contact <a href="#">Technical Service</a> if you have any questions.
<b>Application References</b>	<ol style="list-style-type: none"> <li>1. Craig W, <i>et al.</i> 1993. <i>J. Exp. Med.</i> 177:1331. (IP)</li> <li>2. Gundlach CW 4th, <i>et al.</i> 2011. <i>Bioconjug. Chem.</i> 22:1706. (Pig Reactivity)</li> <li>3. Touboul C, <i>et al.</i> 2013. <i>J. Transl. Med.</i> 11:28. (IF)</li> <li>4. Bradley JE, <i>et al.</i> 2013. <i>Lab Invest.</i> 93:365. (Epitope)</li> <li>5. Donnenberg VS, <i>et al.</i> 2010. <i>Cytometry B. Clin. Cytom.</i> 5:287. (IHC)</li> </ol>
<b>(PubMed link indicates BioLegend citation)</b>	

## Product Citations

1. Luchsinger LL, *et al.* 2020. *Cell Stem Cell*. 25(2):225-240. [PubMed](#)
2. Dzikowski L, *et al.* 2021. *Brain Pathol*. 31:e12947. [PubMed](#)
3. Watanabe Y, *et al.* 2015. *Mol Ther Nucleic Acids*. 4: e253. [PubMed](#)
4. de Almeida MJ *et al.* 2017. *Cell stem cell*. 21(6):725-729 . [PubMed](#)
5. Saygin C, *et al.* 2021. *Leukemia*. 35:3406. [PubMed](#)

## RRID

AB\_2566340 (BioLegend Cat. No. 328131)  
AB\_2566341 (BioLegend Cat. No. 328132)

## Antigen Details

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<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>	<ol style="list-style-type: none"><li>1. McKenzie JL, <i>et al.</i> 1981. <i>J. Immunol</i>. 126:843.</li><li>2. Avalos AM, <i>et al.</i> 2002. <i>Biol. Res</i>. 35:231.</li><li>3. Wetzel A, <i>et al.</i> 2004. <i>J. Immunol</i>. 172:3850.</li></ol>
<b>Gene ID</b>	<a href="#">7070</a>

## Related Protocols

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[Cell Surface Flow Cytometry Staining Protocol](#)

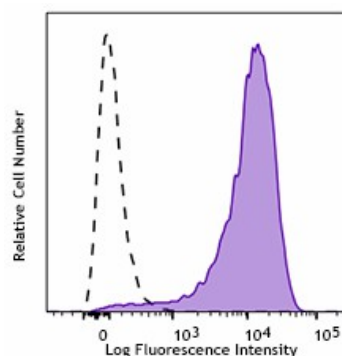
## Other Formats

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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), APC 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), TotalSeq™-D0060 anti-human CD90 (Thy1)

## Product Data

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Human erythroleukemia cell line (HEL) was stained with CD90 (Thy1) (clone 5E10) APC/Cyanine7 (filled histogram) or Mouse IgG1, ? APC/Cyanine7 isotype control (open histogram)

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