

**Alexa Fluor® 700 anti-human CD90 (Thy1)**

**Catalog # / Size:** 2240600 / 100 µg  
2240595 / 25 µg

**Clone:** 5E10

**Isotype:** Mouse IgG1, κ

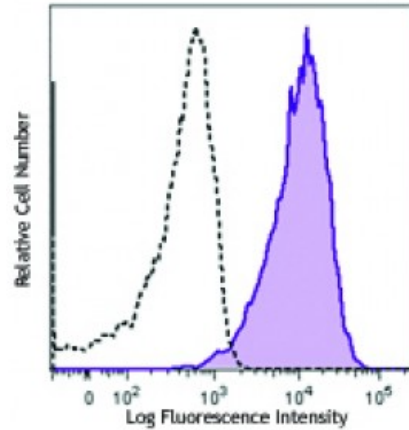
**Immunogen:** HEL cells

**Reactivity:** Human

**Preparation:** The antibody was purified by affinity chromatography, and conjugated with Alexa Fluor® 700 under optimal conditions.

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

**Concentration:** 0.5



Human erythroleukemic cell line (HEL) were stained with CD90 (clone 5E10) Alexa Fluor® 700 (filled histogram) or mouse IgG1, κ Alexa Fluor® 700 isotype control (open histogram).

**Applications:**

**Applications:** Flow Cytometry

**Recommended Usage:** Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. The suggested use of this reagent is ≤ 2.0 microg per 10<sup>6</sup> cells in 100 microL volume or 100 microL of whole blood. It is highly recommended that the reagent be titrated for optimal performance for each application.

\* Alexa Fluor® 700 has a maximum emission of 719 nm when it is excited at 633nm / 635nm. Prior to using Alexa Fluor® 700 conjugate for flow cytometric analysis, please verify your flow cytometer's capability of exciting and detecting the fluorochrome.

**Application Notes:** 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>.

- Application References:**
1. Craig W, *et al.* 1993. *J. Exp. Med.* 177:1331. (IP)
  2. Gundlach CW 4th, *et al.* 2011. *Bioconjug. Chem.* 22:1706. (Pig Reactivity)
  3. Touboul C, *et al.* 2013. *J. Transl. Med.* 11:28. (IF)
  4. Bradley JE, *et al.* 2013. *Lab Invest.* 93:365. (Epitope)
  5. Donnenberg VS, *et al.* 2010. *Cytometry B. Clin. Cytom.* 5:287. (IHC)

**Description:** 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.

- Antigen**
- References:**
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.