

**Brilliant Violet 711™ anti-human CD90 (Thy1)**

**Catalog # / Size:** 2240695 / 25 tests  
2240700 / 100 tests

**Clone:** 5E10

**Isotype:** Mouse IgG1, κ

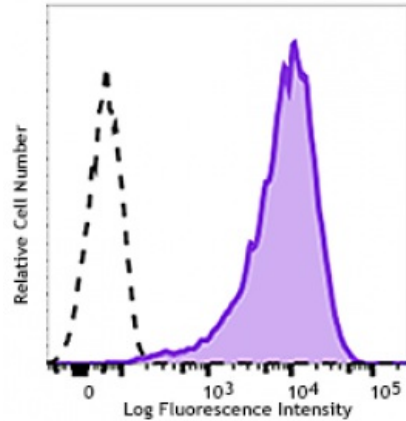
**Immunogen:** HEL cells

**Reactivity:** Human, Non-human primate

**Preparation:** The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 711™ under optimal conditions. The solution is free of unconjugated Brilliant Violet 711™ and unconjugated antibody.

**Formulation:** Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA).

**Concentration:** Lot-specific



Human erythroleukemia cell line (HEL) was stained with CD90 (Thy1, clone 5E10) Brilliant Violet 711™ (filled histogram) or Mouse IgG1, κ Brilliant Violet 711™ 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. For flow cytometric staining, the suggested use of this reagent is 5 µl per million cells or 5 µl per 100 µl of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

Brilliant Violet 711™ excites at 405 nm and emits at 711 nm. The bandpass filter 710/50 nm is recommended for detection, although filter optimization may be required depending on other fluorophores used. Be sure to verify that your cytometer configuration and software setup are appropriate for detecting this channel. Refer to your instrument manual or manufacturer for support. Brilliant Violet 711™ is a trademark of Sirigen Group Ltd.

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**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. 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.

**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  $\beta$ 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.

**Antigen**  
**References:**

1. McKenzie JL, *et al.* 1981. *J. Immunol.* 126:843.
2. Avalos AM, *et al.* 2002. *Biol. Res.* 35:231.
3. Wetzell A, *et al.* 2004. *J. Immunol.* 172:3850.