SONY

Product Data Sheet

APC/Fire™ 750 anti-human CD90 (Thy1)

Catalog # / Size: 2240690 / 100 tests
2240685 / 25 tests

Clone: 5E10

Isotype: Mouse IgG1, κ

Immunogen: HEL cells

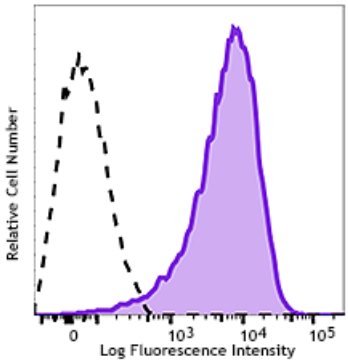
Reactivity: Human, Non-human primate, Other

Preparation: The antibody was purified by affinity chromatography and conjugated with APC/Fire™ 750 under optimal conditions.

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

Workshop Number: HCDM listed

Concentration: Lot-specific



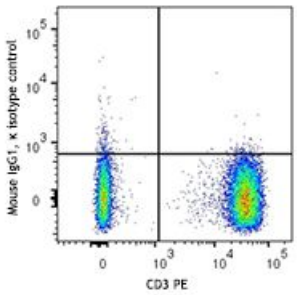
Human erythroleukemia cell line (HEL) was stained with CD90 (Thy1, clone 5E10) APC/Fire™ 750 (filled histogram) or Mouse IgG1, κ APC/Fire™ 750 isotype control (open histogram).

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 in 100 µl staining volume or 5 µl per 100 µl of whole blood.

* APC/Fire™ 750 has a maximum excitation of 650 nm and a maximum emission of 787 nm.



Application Notes: Clone 5E10 recognizes an epitope on Thy-1 independent of its glycosylation, but is abolished under reducing conditions.[4] Additional reported (for the relevant formats) applications include: immunohistochemical staining of acetone-fixed frozen sections, immunoprecipitation[1], and immunofluorescence[3].

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)

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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 $CD34^+$ cells, a subset of fetal liver cells and fetal thymocytes, fibroblasts, activated endothelial cells, and some leukemia cell lines. $CD34^+CD90^+$ 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.

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