Datasheet

Mouse mAb to **CD90**
Clone **AF-9**
Isotype **IgG1-κ**

Source

A BALB/c mouse was immunized with T-cell lymphoma cells.
Fusion partner: NS-1.

Specifications

CD90 (Thy-1) is an 18-35 kDa GPI-anchored glycoprotein and a member of the immunoglobulin superfamily. It may contribute to inhibition of proliferation/differentiation of hematopoietic stem cells and neuron memory formation in the CNS. It consists of a single Ig domain (112 amino acids; 25-35 kDa) inserted into the cell membrane via a GPI-anchor. Expressed by hematopoietic stem cells and neurons in all species studied. Its highly expressed in connective tissue and various fibroblasts and stromal cell lines, expressed only on small % fetal thymocytes, 10-40% of $CD34^+$ cells in bone marrow, and <1% of $CD3^+$ and $CD4^+$ lymphocytes in peripheral circulation. It is also expressed by a limited number of lymphoblastoid and leukemic cell lines.

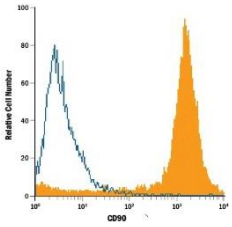

Figure 1: CCRF-CEM cells stained for CD90 (FACS).

Species reactivity

Positive: human, cow.

Applications

CD90 mAbs are very useful for identifying $CD34^+$ hematopoietic precursor cells. $CD34^+$ and $CD90^+$ cells include hematopoietic stem cells that can serve as autologous grafts to replace the bone marrow in patients with malignancies.

Flow cytometry	Frozen sections	Immunofluorescence	Paraffin sections
+	+	+	—

Format

Produced in tissue culture, contains no host Ig. Antibodies are affinity purified and presented in PBS with 0,02% sodium azide.
Stored at 4°C-8°C, shelf life is at least 24 months after purchase.

Dilution advice

- Flow cytometry (0,5-1,0 µg/million cells in 0,1 ml).
- Immunofluorescence (0,5-1,0 µg/ml).
- Immunohistology (1-2 µg/ml for 30 min at RT; an appropriate antigen retrieval method for staining of formalin-fixed tissues has not been established to date).

Positive control

IMR-32, CCRF-CEM or MOLT-4 cells. Human uterus.

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References

- Cervelló I et al. *PLoS One* **6**: e21221 (2011).
- Lehmann GM et al. *Am J Physiol Cell Physiol* **299**: C672-81 (2010).