

# CD123 (Clone 7G3)

## Mouse Monoclonal Antibody

**Specificity:** Human. Others unknown

**Immunogen:** Human IL-3Ra-transfected cells

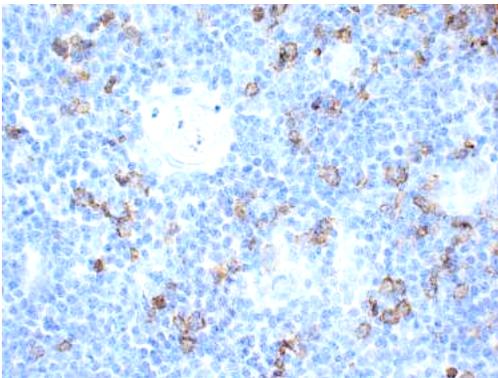
**Ig Class:** IgG2a/ $\kappa$

**Storage:** Store vial at 4°C. When stored at 2-8°C, this antibody is stable for 24 months

**Staining procedures:** Use formalin-fixed and paraffin-embedded sections. *Retrieval conditions:* Pretreatment of deparaffinized tissue with heat-induced epitope retrieval is recommended. *Detection methods:* Polymer anti-mouse/rabbit Ig detection system. *Working dilution:* 1:100; *Positive Control:* Lymph node or thymus. *Cellular Localization:* Cytoplasmic. *Intended Use:* In Vitro Diagnosis (IVD).

**Description:** Human CD123, the 70 kD IL-3 receptor  $\alpha$  chain (IL-3R $\alpha$ ), is associated with the 120-140 kD  $\beta$  subunit. The  $\beta$  chain is shared with the receptors for interleukins IL-5 and GM-CSF. IL-3R $\alpha$  is expressed on hematopoietic progenitors and plays an important role in hematopoietic progenitor cell growth and differentiation. This antibody has been reported to block the binding of 125I-IL-3 to high and low affinity IL-3 receptors. In functional experiments, this antibody was found to inhibit acute myeloid leukemia cell proliferation, basophil histamine release, endothelial cell-mediated IL-8 secretion, and neutrophil transmigration. At the Fifth HLDA Workshop, the human IL-3 receptor was designated CD123. This antibody reacts with plasmacytoid dendritic cells (PDC). PDC plays a crucial role in the initiation of antiviral and antitumoral immune responses and produce type I interferons  $\alpha$  and  $\beta$ . CD123 antibody is useful in diagnosis of Kikuchi disease, hyaline vascular type of Castleman disease, lupus, and primary cutaneous marginal zone B-cell lymphoma.

**Supplied As:** Purified antibody in 0.2% BSA and 15mM sodium azide.



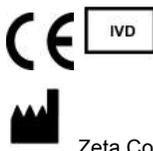
### References:

1. Facchetti F, et al. WHO classification of tumours of haematopoietic and lymphoid tissues. 4th ed. Lyon, France: IARC Press; 2008:145-7.
2. Cronin DMP, et al. *Am J Clin Pathol.* 2012; 137:367-76.

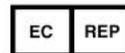
*Formalin-fixed, paraffin-embedded human thymic tissue stained with anti-CD123 antibody using peroxidase-conjugate and DAB chromogen. Note the cytoplasmic staining of scattered plasmacytoid dendritic cells*

**Cat. #Z2200 (1.0 ml)**

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