

Product datasheet for **AM08122BT-N**

CD45 / LCA Mouse Monoclonal Antibody [Clone ID: LT40]

Product data:

Product Type:	Primary Antibodies
Clone Name:	LT40
Applications:	FC
Recommended Dilution:	Flow Cytometry: < / = 1 µg/10e6 cells. (Ref.1)
Reactivity:	Chicken
Host:	Mouse
Isotype:	IgM
Clonality:	Monoclonal
Specificity:	This antibody recognizes Chicken CD45 (Mr. 190 to 215-kDa). The ability of this Monoclonal to discriminate this CD45 ^{lo} subpopulation provides a suitable Marker for the CD3-CD4-CD8 ^{lo} immediate precursors to the CD3-CD4+CD8 ⁺ thymocytes. (Ref.1)
Formulation:	PBS containing 0.09% Sodium Azide as preservative. Label: Biotin State: Liquid purified Ig fraction.
Concentration:	lot specific
Conjugation:	Biotin
Storage:	Store the antibody undiluted at 2-8°C for one month or in (aliquots) at -20°C for longer. This product is photosensitive and should be protected from light. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Database Link:	Q9I8D7



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Background:

CD45 is a family of single chain transmembrane glycoproteins consisting of at least four isoforms (220, 205, 190, 180 kDa) which share a common large intracellular domain. Their extracellular domains are heavily glycosylated. The different isoforms are produced by alternative messenger RNA splicing of three exons of a single gene on chromosome 1. CD45 is expressed on cells of the human hematopoietic lineage (including hematopoietic stem cells) with the exception of mature red cells. It is not detected on differentiated cells of other tissues. It is likely that CD45 plays an important role in signal transduction, inhibition or upregulation of various immunological functions. Antibodies recognising a common epitope on all of the isoforms are termed CD45 whilst those recognising only individual isoforms are termed CD45RA or CD45RO etc.

Chicken CD45 is expressed on all leukocytes. B lineage cells in the bursa of Fabricius express the 215 kDa isoform while T lineage cells bear the 190 kDa variant. These high molecular weight molecules have intrinsic phosphotyrosine phosphatase activity characteristic of mammalian CD45. Levels of CD45 expression detected by this antibody in the avian thymus are heterogeneous with approximately 90% of thymocytes expressing four fold higher levels of surface CD45 (CD45hi) than do the remaining 10% (CD45lo) of thymocytes. The CD45lo population contains exclusively thymocytes with the CD3-CD4-CD8lo phenotype characteristic of the immediate precursors to the CD3-CD4+CD8+ thymic population which are CD45hi. This shift from low to high levels of surface CD45 expression is concomitant with the transition from CD4-CD8lo to CD4+CD8+ and before the expression of CD3.

Synonyms:

PTPRC, Leukocyte common antigen, L-CA, T200