

## Product datasheet for **AM32153SU-N**

### Cd8a Mouse Monoclonal Antibody [Clone ID: R73-2b]

#### Product data:

Product Type:	Primary Antibodies
Clone Name:	R73-2b
Applications:	IHC
Recommended Dilution:	<b>Flow Cytometry.</b> <b>Immunohistochemistry on Fresh-Frozen Tissues.</b> It can also be applied in assays that are based on <b>T cell activation.</b>
Reactivity:	Rat
Host:	Mouse
Isotype:	IgG2b
Clonality:	Monoclonal
Specificity:	The <i>R73-2b</i> Monoclonal antibody binds to an epitope of the constant region of the Rat <i>alpha/beta</i> -T cell receptor and is able to activate Rat T cells (Beun et al., <b>1993</b> ). The reactivity of <i>R73-2b</i> Monoclonal antibody is Rat strain-independent. R73-coated culture flasks induce Rat T cell proliferation (Beun et al., <b>1993</b> ). This Monoclonal antibody is an IgG2b isotype switch variant (Beun et al., <b>1993</b> ) of the well-known <i>R73</i> IgG1 Monoclonal antibody that is specific for the Rat <i>alpha/beta</i> -T cell receptor (Hünig et al. <b>1989</b> ).
Formulation:	State: Supernatant State: Hybridoma Culture Supernatant Preservative: 0.05% Sodium Azide
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C for Two months or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	CD8a molecule
Database Link:	<a href="#">Entrez Gene 24930 Rat P07725</a>



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**Background:**

The T cell antigen receptor (TCR) recognizes foreign antigens and translates such recognition events into intracellular signals that elicit a change in the cell from a dormant to an activated state. TCR is a heterodimer composed of either  $\alpha$  and  $\beta$  or  $\gamma$  and  $\delta$  chains. The vast majority of circulating T cells (95%) express the  $\alpha/\beta$  heterodimer while roughly 2-5% express the  $\gamma/\delta$  heterodimer.

CD3 chains and the CD4 or CD8 coreceptors are also required for efficient signal transduction through the TCR. The TCR is expressed on T helper and T cytotoxic cells that can be distinguished by their expression of CD4 and CD8. T helper cells express CD4 proteins and T cytotoxic cells display CD8. CD4 is also expressed on cortical cells, mature medullary thymocytes, microglial cells and dendritic cells. CD4, also designated T4 and Leu 3, is a 55 kDa membrane glycoprotein that contains four extracellular immunoglobulinlike domains. The TCR, in association with CD4, can bind class II MHC molecules presented by the antigen-presenting cells. The CD4 protein functions by increasing the avidity of the interaction between the TCR and an antigen-class II MHC complex.

**Synonyms:**

CD8 alpha chain, CD8A, MAL