

## Product datasheet for **AM31862FC-N**

### T Cell Receptor (TCR) V alpha-2 Rat Monoclonal Antibody [Clone ID: B20.1]

#### Product data:

Product Type:	Primary Antibodies
Clone Name:	B20.1
Applications:	FC
Recommended Dilution:	<b>Flow Cytometry</b> (See Protocols). This clone has also been reported to work in <b>Immunoprecipitation</b> . (1,2)
Reactivity:	Mouse
Host:	Rat
Isotype:	IgG2a
Clonality:	Monoclonal
Immunogen:	Purified soluble $\alpha/\beta$ T cell receptor from the cytotoxic T cell clone, KB5-C20. (1)
Specificity:	This antibody reacts with Mouse T-Cell Receptor (TCR) Va2 chains (1), and recognizes the majority of the TCR Va2 subfamily in mice carrying the a, b and c haplotypes 1,2. It also reacts with the products of T Cell Receptor, V $\delta$ 8 due to the high degree of homology (1).
Formulation:	PBS containing 0.09% Sodium Azide as preservative and EIA grade BSA as a stabilizing protein to bring total protein concentration to 4-5 mg/ml. Label: FITC State: Liquid purified IgG fraction.
Concentration:	lot specific
Conjugation:	FITC
Storage:	Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Background:	The TCR alpha chain complexes with the TCR beta chain to form the T cell receptor in 95% of T cells, whereas the remaining 5% of T cells express gamma and delta chains ( $\gamma/\delta$ ). TCR Va2 is a distinct TCR subfamily found in mice having the a, b, and c haplotypes.



[View online »](#)

Note: Protocol: **Flow Cytometry Analysis:**

**Method:**

1. Prepare cell suspension in Media A. For cell replications, deplete the red blood cell population with Lympholyte®-M cell separation medium.
2. Wash 2 times.
3. Resuspend the cells to a concentration  $2 \times 10^7$  cells/ml in media A. Add 50  $\mu$ l of this suspension to each tube (each tube will then contain  $1 \times 10^6$  cells, representing one test).
4. To each tube add  $\sim 1.0$   $\mu$ g of this antibody AM31862FC-N per  $1 \times 10^6$  cells.
5. Vortex the tubes to ensure thorough mixing of antibody and cells.
6. Incubate tubes at 4°C for 30-60 minutes. (It is recommended that the tubes are protected from light since most fluorochromes are light sensitive).
7. Wash 2 times at 4°C.
8. Resuspend the cell pellet in 50  $\mu$ l ice cold Media B.
9. Transfer to suitable tubes for flow cytometric analysis containing 15  $\mu$ l of propidium iodide at 0.5 mg/ml in phosphate buffered saline. This stains dead cells by intercalating DNA.

**Media:**

- A. Phosphate buffered saline (pH 7.2) + 5% normal serum of host species + sodium azide (100  $\mu$ l of 2 M sodium azide in 100 mls).
- B. Phosphate buffered saline (pH 7.2) + 0.5% bovine serum albumin + sodium azide (100  $\mu$ l of 2 M sodium azide in 100 mls).

**Results:**

Tissue Distribution by Flow Cytometry Analysis:

(Representative Histogram in Figure.1)

Mouse Strain: C57BL/6

Cell Concentration :  $1 \times 10^6$  cells per test

Antibody Concentration Used: 0.12  $\mu$ g/ $10^6$  cells

Isotypic Control: FITC Rat IgG2

## Product images:

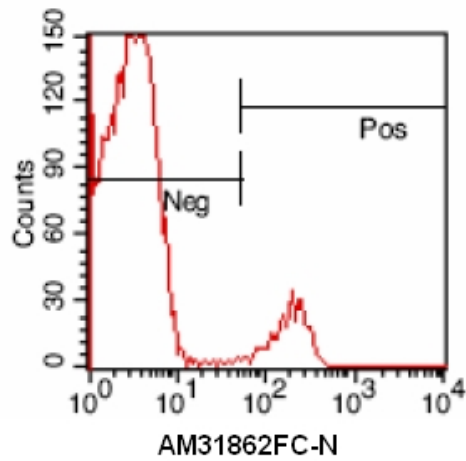


Figure 1. Cell Source: Mouse Lymph Node.  
Percentage of cells stained above control: 7.9 %