

Anti-TCR [H57-597] Standard Size Ab00903-3.0

This chimeric mouse antibody was made using the variable domain sequences of the original Hamster IgG format, for improved compatibility with existing reagents, assays and techniques.

Isotype and Format: Mouse IgG2b, Lambda

Clone Number: H57-597

Alternative Name(s) of Target: TCR-beta; T cell receptor; T-cell receptor; T cell receptor beta chain; TCRB; TRB; TCB1; Ti

UniProt Accession Number of Target Protein: P01852

Published Application(s): crystallisation, IP, FC, IHC

Published Species Reactivity: Mouse

Immunogen: Hamsters were immunised with affinity purified DO-11.10 TCR, and produced detectable anti-TCR antibodies which were judged by the ability of the anti-sera to immunoprecipitate TCR from surface labelled DO-11.10 T cell hybridomas. Hamster 57 was selected for hybridisation, and B cell hybridomas were produced using polyethylene glycol fusion of hamster splenic B cells to the mouse myeloma variant. Selected mAb were screened after subsequent culturing for their ability to immunoprecipitate TCR from detergent lysates of surface-radiolabelled murine T cell hybridomas.

Specificity: mAb H57-597 reacts with surface receptors on all alpha-beta TCR bearing cells, but does not react with receptors on gamma-delta T cells. H57-597 is directed to an epitope within the FG loop of the C region of TCR beta chain.

Application Notes: In an immobilised form, this antibody can directly activate T cells bearing alpha-beta TCR to produce IL-2. H57-597 has also been used to construct a Fab fragment which has been complexed with deglycosylated TCRs for their crystallisation for structure determination (Liu 1996). Flow cytometry is another application of this antibody, where H57-597 has been used to analyse TCR-beta expression in different T cell populations (Tsukumo 2006).

Antibody First Published in: Kubo et al. Characterisation of a monoclonal antibody which detects all murine alpha-beta T cell receptors J Immunol. 1989 Apr 15;142(8):2736-42. [PMID:2467936](#)

Note on publication: Describes the need for a monoclonal antibody that detects alpha-beta but not delta-gamma TCRs, to allow enumeration of the two types of cells separately during development. The generation of the antibody is then outlined.

Product Form

Size: 200 µg Purified antibody.

Purification: Protein A affinity purified

Supplied In: PBS with 0.02% Proclin 300.

Storage Recommendation: Store at 4°C for up to 3 months. For longer storage, aliquot and store at -20°C.

Concentration: 1 mg/ml.

Important note – This product is for research use only. It is not intended for use in therapeutic or diagnostic procedures for humans or animals.