Technical Data Sheet

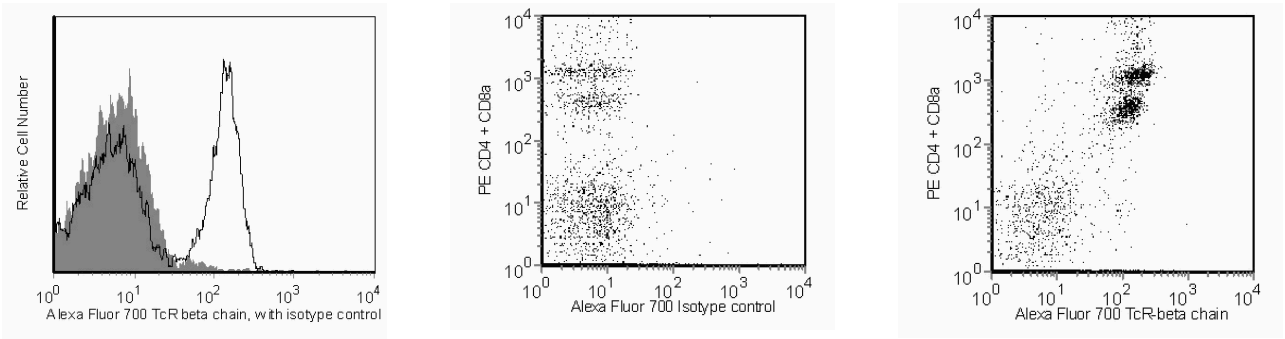
Alexa Fluor® 700 Hamster Anti-Mouse TCR β Chain

Product Information

Material Number:	**560705**
Size:	50 µg
Concentration:	0.2 mg/ml
Clone:	H57-597
Immunogen:	TCR affinity-purified from mouse T-cell hybridoma DO-11.10
Isotype:	Armenian Hamster IgG2, λ1
Reactivity:	QC Testing: Mouse
Storage Buffer:	Aqueous buffered solution containing protein stabilizer and ≤0.09% sodium azide.

Description

The H57-597 antibody reacts with a common epitope of the β chain of the T-cell Receptor (TCR) complex on αβ TCR-expressing thymocytes and peripheral T lymphocytes and NK1.1+ thymocytes and NK-T cells of all mouse strains tested. It does not react with γδ TCR-bearing T cells. In the fetal and adult thymus, the TCR β-chain may form homodimers or pair with the pre-TCR α-chain on the surface of immature thymocytes before expression of the TCR α-chain. Plate-bound or soluble H57-597 antibody activates αβ TCR-bearing T cells, and plate-bound mAb can induce apoptotic death.



Flow cytometric analysis of the T-cell receptor (TcR) β-chain on mouse splenocytes. Left Panel: *Splenocytes from C57BL/6 mice were stained with either a Alexa Fluor® 700 Hamster IgG2, λ1 isotype control (shaded) or with the Alexa Fluor® 700 Hamster Anti-Mouse TcR β-chain antibody (unshaded).* ***Middle and Right Panels:*** *Splenocytes from C57BL/6 mice were stained with both a PE Rat Anti-Mouse CD4 antibody (Cat.No. 553049) and a PE Rat Anti-Mouse CD8a antibody (Cat.No. 553033) in conjunction with either a Alexa Fluor® 700 Hamster IgG2, λ1 isotype control (middle panel) or the Alexa Fluor® 700 Hamster Anti-Mouse TcR β-chain antibody (right panel). Histograms and dot plots were derived from gated events based on light scattering characteristics for splenocytes. Flow cytometry was performed on a BD™ LSR II flow cytometry system.*

Preparation and Storage

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

The antibody was conjugated to Alexa Fluor® 700 under optimum conditions, and unreacted Alexa Fluor® 700 was removed.

Application Notes

Application

Flow cytometry	Routinely Tested

Suggested Companion Products

Catalog Number	Name	Size	Clone
557985	Alexa Fluor® 700 Hamster IgG2, λ Isotype Control	0.1 mg	Ha4/8
553049	PE Rat Anti-Mouse CD4	0.2 mg	RM4-5
553033	PE Rat Anti-Mouse CD8a	0.2 mg	53-6.7

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. An isotype control should be used at the same concentration as the antibody of interest.

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3. Although hamster immunoglobulin isotypes have not been well defined, BD Biosciences Pharmingen has grouped Armenian and Syrian hamster IgG monoclonal antibodies according to their reactivity with a panel of mouse anti-hamster IgG mAbs. A table of the hamster IgG groups, Reactivity of Mouse Anti-Hamster Ig mAbs, may be viewed at http://www.bdbiosciences.com/documents/hamster_chart_11x17.pdf.
4. Alexa Fluor® 700 has an adsorption maximum of ~700nm and a peak fluorescence emission of ~720nm. Before staining cells with this reagent, please confirm that your flow cytometer is capable of exciting the fluorochrome and discriminating the resulting fluorescence.
5. Alexa Fluor® is a registered trademark of Molecular Probes, Inc., Eugene, OR.
6. The Alexa Fluor®, Pacific Blue™, and Cascade Blue® dye antibody conjugates in this product are sold under license from Molecular Probes, Inc. for research use only, excluding use in combination with microarrays, or as analyte specific reagents. The Alexa Fluor® dyes (except for Alexa Fluor® 430), Pacific Blue™ dye, and Cascade Blue® dye are covered by pending and issued patents.
7. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
8. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/colors.
9. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

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