

Technical Data Sheet

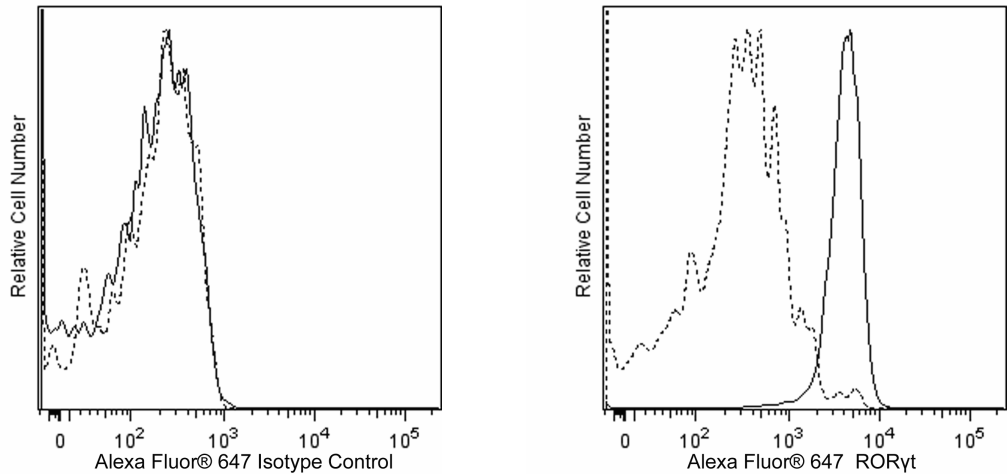
Alexa Fluor® 647 Mouse Anti-Mouse RORγt

Product Information

Material Number:	562682
Alternate Name:	RORγT; RORgt; RORgamma t; RORgammaT; Rorc2; Rorg; TOR; Thor; Nr1f3
Size:	50 µg
Concentration:	0.2 mg/ml
Clone:	Q31-378
Immunogen:	Mouse RORγt Recombinant Protein
Isotype:	Mouse IgG2a, κ
Reactivity:	QC Testing: Mouse
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The Q31-378 monoclonal antibody recognizes mouse RORgamma t (RORγt), an isoform of RORgamma (RORγ). RORγt is a DNA-binding transcription factor that belongs to the ROR/RZR orphan nuclear receptor family. RORγt is expressed exclusively by lymphoid cells including CD4+CD8+ thymocytes, peripheral CD4+ Th17 and CD8+ Tc17 cells, NKT cells and innate lymphoid cells such as lymphoid tissue inducer (LTi) cells. RORγt plays essential roles in thymopoiesis, T cell homeostasis, differentiation of effector T lymphocytes and the development of secondary lymphoid tissues including lymph nodes and Peyer’s patches.



**Multicolor flow cytometric analysis of RORγt expression in mouse thymocytes.** BALB/c mouse thymocytes were stained with FITC Rat Anti-Mouse CD4 (Cat. No. 553047/553046/561835) and PE Rat Anti-Mouse CD8a (Cat. No. 553033/553032/561095) antibodies, and then fixed and permeabilized using the BD Pharmingen™ Transcription Factor Buffer Set (Cat. No. 562574/562725). The fixed and permeabilized cells were then stained with either Alexa Fluor® 647 Mouse IgG2a, κ Isotype Control (Cat. No. 557715) or Alexa Fluor® 647 Mouse Anti-Mouse RORγt antibody (Cat. No. 562682). The overlapping histograms show the levels of IgG2a Isotype Control (Left Panel) and RORγt (Right Panel) staining in CD4+ CD8- single-positive (dashed line histogram) or CD4+ CD8+ double-positive (solid line histogram) thymocytes. The fluorescence histograms were derived from events with the forward and side light-scatter characteristics of intact cells. Flow cytometry was performed using 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® 647 under optimum conditions, and unreacted Alexa Fluor® 647 was removed.

Application Notes

Application

Intracellular staining (flow cytometry)	Routinely Tested
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### Recommended Assay Procedure:

Optimal staining occurs when using the BD Pharmingen™ Alexa Fluor® 647 Mouse anti-Mouse RORγt antibody with cells that have been fixed and permeabilized with the BD Pharmingen™ Transcription Factor Buffer Set (Cat. No. 562574/562725).

### Suggested Companion Products

Catalog Number	Name	Size	Clone
557715	Alexa Fluor® 647 Mouse IgG2a, κ Isotype Control	100 tests	G155-178
562574	Transcription Factor Buffer Set	100 tests	(none)
562725	Transcription Factor Buffer Set	25 tests	(none)
554656	Stain Buffer (FBS)	500 ml	(none)
562663	Purified Mouse anti-Mouse RORγt	50 µg	Q31-378
562197	Purified Mouse Anti-RORγt	0.1 mg	O28-835

### 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.
3. Please refer to [www.bdbiosciences.com/pharmingen/protocols](http://www.bdbiosciences.com/pharmingen/protocols) for technical protocols.
4. 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.
5. Alexa Fluor® is a registered trademark of Molecular Probes, Inc., Eugene, OR.
6. Alexa Fluor® 647 fluorochrome emission is collected at the same instrument settings as for allophycocyanin (APC).
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 Multicolor Flow Cytometry web page at [www.bdbiosciences.com/colors](http://www.bdbiosciences.com/colors).

### References

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