# **Technical Data Sheet**

# FITC Rat Anti-Human CD294 (CRTH2)

# **Product Information**

Material Number:	561659	
Alternate Name:	CRTH2; PGRD2; DL1R; DP2; GPR44	
Size:	50 µg	
Concentration:	0.5 mg/ml	
Clone:	BM16	
Immunogen:	Transfectant cells	
lsotype:	Rat IgG2a, ĸ	
Reactivity:	QC Testing: Human	
Workshop:	VIII	
Storage Buffer:	Aqueous buffered solution containing $\leq 0.09\%$ sodium azide.	
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#### Description

The BM16 monoclonal antibody specifically binds to CRTH2 (chemoattractant receptor-homologous molecule expressed on Th2 cells). CRTH2 is a member of the G protein-coupled leukocyte chemoattractant receptor family and it is expressed on Th2, but not Th1 lineage cells. It is detectable on CD4+ T cells in fresh PBMC and no significant expression on B cells and NK cells. CRTH2 is also expressed on peripheral blood basophils and eosinophils, suggesting its involvement allergic reactions. Phenotypic analysis of CD4+ T cells expressing CRTH2 demonstrated CD45RA-, CD45RO+ and CD25+. These cells produce Th2- but little or no Th1-type cytokines upon stimulation with PMA and Ionomycin.



Multicolor flow cytometric analysis of CD294 expression on human peripheral blood cells. Whole blood was stained with PE Mouse Anti-Human CD45 (Cat. No. 555483/560975) and either FITC Rat IgG2a, κ Isotype Control (Cat. No. 555843; Left Panel) or a FITC Rat Anti-Human CD294 antibody (Cat. No. 561659; Right Panel). The erythrocytes were lysed with BD PharmLyse™ Lysing Buffer (Cat. No. 555899). Two-color dot plots showing the correlated expression of CD45 versus CD294 (or Ig isotype control staining) were derived from gated events with the forward and side light-scatter characteristics of viable leukocytes. 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 with FITC under optimum conditions, and unreacted FITC was removed.

## Application Notes

## Application

[	Flow	cytometry
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Routinely Tested

#### **BD Biosciences**

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# **Suggested Companion Products**

Catalog Number	Name	Size	Clone
555843	FITC Rat IgG2a, κ Isotype Control	100 tests	R35-95
555899	Lysing Buffer	100 ml	(none)
554656	Stain Buffer (FBS)	500 ml	(none)
555483	PE Mouse Anti-Human CD45	100 tests	HI30
560975	PE Mouse Anti-Human CD45	25 tests	HI30

# **Product Notices**

- 1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
- 2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
- 3. An isotype control should be used at the same concentration as the antibody of interest.
- 4. 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.
- 5. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/colors.

#### References

Cosmi L, Annunziato F, Galli MIG , Maggi RME , Nagata K, Romagnani S. CRTH2 is the most reliable marker for the detection of circulating human type 2 Th and type 2 T cytotoxic cells in health and disease. *Eur J Immunol.* 2000; 30(10):2972-2979. (Biology)

Nagata K, Hirai H, Tanaka K, et al. CRTH2, an orphan receptor of T-helper-2-cells, is expressed on basophils and eosinophils and responds to mast cell-derived factor(s). FEBS Lett. 1999; 459(2):195-199. (Biology)

Nagata K, Tanaka K, Ogawa K, et al. Selective expression of a novel surface molecule by human Th2 cells in vivo. J Immunol. 1999; 162(3):1278-1286. (Biology)