

Technical Data Sheet

BV480 Mouse Anti-Human CD85k

Product Information

Material Number:	746718
Size:	50 µg
Clone:	ZM3.8
Alternative Name:	LILRB4; ILT-3; HM18; LIRB4; LIR-5
Reactivity:	Human (Tested in Development)
Isotype:	Mouse BALB/c IgG1
Immunogen:	Human ILT3 Recombinant Protein
Application:	Flow cytometry (Qualified)
Concentration:	0.2 mg/ml
Entrez Gene ID:	11006
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.
Regulatory Status:	RUO

Description

The ZM3.8 monoclonal antibody specifically binds to CD85k which is also known as Immunoglobulin-like transcript 3 (ILT-3) and Monocyte inhibitory receptor HM18. CD85k is encoded by LILRB4 (Leukocyte immunoglobulin-like receptor, subfamily B member 4) and is expressed as a type I transmembrane glycoprotein. CD85k is comprised of two C2-type Ig domains, a transmembrane region, and a cytoplasmic tail with three immunoreceptor tyrosine-based inhibitory motifs (ITIMs). CD85k is selectively expressed by myeloid antigen presenting cells including monocytes, macrophages, and dendritic cells. CD85k functions as an inhibitory receptor. ILT3 can also function in antigen capture and presentation. It is efficiently internalized upon cross-linking, and delivers its ligand to an intracellular compartment where it is processed and ultimately presented by APCs to T cells. Thus, ILT3 is a novel inhibitory receptor that can negatively regulate activation of APCs and can be used by APCs for antigen uptake. ILT3 expression is upregulated on tolerogenic dendritic cells that can induce regulatory T cells.

The antibody was conjugated to BD Horizon™ BV480 which is part of the BD Horizon Brilliant™ Violet family of dyes. With an Ex Max of 436-nm and Em Max at 478-nm, BD Horizon BV480 can be excited by the violet laser and detected in the BD Horizon BV510 (525/40-nm) filter set. BV480 has less spillover into the BV605 detector and, in general, is brighter than BV510.

Preparation and Storage Section

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 BD Horizon BV480 under optimal conditions that minimize unconjugated dye and antibody.

Recommended Assay Procedure

For optimal and reproducible results, BD Horizon Brilliant Stain Buffer should be used anytime two or more BD Horizon Brilliant dyes (including BD OptiBuild Brilliant reagents) are used in the same experiment. Fluorescent dye interactions may cause staining artifacts which may affect data interpretation. The BD Horizon Brilliant Stain Buffer was designed to minimize these interactions. More information can be found in the Technical Data Sheet of the BD Horizon Brilliant Stain Buffer (Cat. No. 563794).

Suggested Companion Products

Catalog Number	Name	Size	Clone
554656	Stain Buffer (FBS) RUO	500 mL	
554657	Stain Buffer (BSA) RUO	500 mL	
563794	Brilliant Stain Buffer RUO	100 Tests	
555899	Lysing Buffer RUO	100 mL	
349202	Lysing Solution 10X Concentrate IVD	100 NA	
564219	Human BD Fc Block™ RUO	50 mg	

Product Notices

1. This antibody was developed for use in flow cytometry.
2. The production process underwent stringent testing and validation to assure that it generates a high-quality conjugate with consistent performance and specific binding activity. However, verification testing has not been performed on all conjugate lots.
3. Researchers should determine the optimal concentration of this reagent for their individual applications.
4. An isotype control should be used at the same concentration as the antibody of interest.
5. 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.
6. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at wwwbdbiosciences.com/colors.
7. Please refer to wwwbdbiosciences.com/us/s/resources for technical protocols.
8. BD Horizon Brilliant Stain Buffer is covered by one or more of the following US patents: 8,110,673; 8,158,444; 8,575,303; 8,354,239.
9. BD Horizon Brilliant Violet 480 is covered by one or more of the following US patents: 8,575,303; 8,354,239.

References

- Cella M, Dohring C, Samaridis J, et al. A novel inhibitory receptor (ILT3) expressed on monocytes, macrophages, and dendritic cells involved in antigen processing. *J Exp Med*. 1997; 185:1743-1751.
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- Mori Y, Tsuji S, Inui M, et al. *J Immunol*. 2008; 181(7):4742-4751.
- Penna G, Roncari A, Amuchastegui S, et al. Expression of the inhibitory receptor ILT3 on dendritic cells is dispensable for induction of CD4+Foxp3+ regulatory T cells by 1,25-dihydroxyvitamin D3. *Blood*. 2005; 106(10):3490-3497.
- Vlad G, Cortesini R, Suci-Foca N. CD8+ T suppressor cells and the ILT3 master switch. *Hum Immunol*. 2008; 69(11):681-686.

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