Technical Data Sheet

BUV737 Rat Anti-Mouse CD155

Product Information

Material Number:	749241
Size:	50 µg
Clone:	3F1
Alternative Name:	Poliovirus receptor; Pvr; Tumor-associated antigen 1; Taa1; Tage4; HVED
Reactivity:	Mouse (Tested in Development)
Isotype:	Rat IgG2a, κ
Immunogen:	Mouse CD155 Recombinant Protein
Application:	Flow cytometry (Qualified)
Concentration:	0.2 mg/ml
Entrez Gene ID:	52118
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.
Regulatory Status:	RUO

Description

The 3F1 monoclonal antibody specifically binds to CD155, which is also known as Poliovirus receptor (Pvr) or Tumor-associated antigen 1 (Taa1). CD155 is a type I transmembrane glycoprotein that belongs to the Ig supergene family. CD155 is an adhesion receptor that binds to different ligands including nectin-3, CD96, CD226, TIGIT, and the extracellular matrix protein vitronectin. It is highly expressed on double positive thymocytes and variably expressed on mature thymocytes and T cells, including regulatory T cells and NKT cells. CD155 is also differentially expressed on subsets of B cells, plasma cells, dendritic cells, and monocytes. CD155 expression is upregulated by activated T cells, B cells, and dendritic cells. CD155 is involved in forming adherens junctions between adjacent epithelial or endothelial cells. CD155 plays roles in regulating cell growth, adhesion, motility, migration, and cell-mediated cytotoxicity. CD155-deficient mice exhibit impaired secondary humoral immune responses to orally administered antigens.
The antibody was conjugated to BD Horizon™ BUV737 which is part of the BD Horizon Brilliant™ Ultraviolet family of dyes. This dye is a tandem fluorochrome of BD Horizon BUV395 with an Ex Max of 348-nm and an acceptor dye with an Em Max at 737-nm. BD Horizon Brilliant BUV737 can be excited by the ultraviolet laser (355 nm) and detected with a 740/35 filter. Due to the excitation of the acceptor dye by other laser lines, there may be significant spillover into channels detecting Alexa Fluor® 700-like dyes (eg, 712/20-nm filter).

Due to spectral differences between labeled cells and beads, using BD™ CompBeads can result in incorrect spillover values when used with BD Horizon BUV737 reagents. Therefore, the use of BD CompBeads or BD CompBeads Plus to determine spillover values for these reagents is not recommended. Different BUV737 reagents (eg, CD4 vs. CD45) can have slightly different fluorescence spillover therefore, it may also be necessary to use clone specific compensation controls when using these reagents.

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 BUV737 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
612760	BUV737 Rat IgG2a, κ Isotype Control R35-95 RUO	50 µg	
553141	Purified Rat Anti-Mouse CD16/CD32 (Mouse BD Fc Block™) 2.4G2 RUO	0.1 mg	

565804	Red Nucleic Acid Stain RUO	0.5 mL
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

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 www.bdbiosciences.com/colors.
7. Please refer to www.bdbiosciences.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 Ultraviolet 737 is covered by one or more of the following US patents: 8,110,673; 8,158,444; 8,227,187; 8,575,303; 8,354,239.

References

Danisch S, Qiu Q, Seth S, et al. CD226 interaction with CD155 impacts on retention and negative selection of CD8 positive thymocytes as well as T cell differentiation to follicular helper cells in Peyer's Patches.. Immunobiology. 2013; 218(2):152-8. (Biology: Flow cytometry).
Maier MK, Seth S, Czeloth N, et al. The adhesion receptor CD155 determines the magnitude of humoral immune responses against orally ingested antigens.. Eur J Immunol. 2007; 37(8):2214-25. (Immunogen: Flow cytometry).
Stanietsky N, Rovis TL, Glasner A, et al. Mouse TIGIT inhibits NK-cell cytotoxicity upon interaction with PVR.. Eur J Immunol. 2013; 43(8):2138-50. (Clone-specific: Flow cytometry).

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