

Technical Data Sheet

BUV737 Mouse Anti-Human CD61

Product Information

Material Number:	750821
Size:	50 µg
Clone:	RUU-PL7F12
Alternative Name:	Integrin β3; Integrin beta-3; GP3A; GPIIIa; ITGB3; ITB3
Reactivity:	Human (Tested in Development)
Isotype:	Mouse BALB/c IgG1
Immunogen:	Purified platelet membrane glycoproteins
Application:	Flow cytometry (Qualified)
Concentration:	0.2 mg/ml
Entrez Gene ID:	3690
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.
Regulatory Status:	RUO

Description

The RUU-PL7F12 monoclonal antibody specifically recognizes CD61, a 110 kDa type I transmembrane glycoprotein, also known as Glycoprotein IIIa (gpIIIa), the common β-subunit (integrin β3-chain) of the gpIIb/IIIa complex and the vitronectin receptor (VNR). The gpIIb/IIIa complex and the VNR are integrins, ie, α/β-heterodimeric glycoprotein complexes that are involved in cell adhesion. With the CD41 antigen (gpIIb or αIIb), the CD61 antigen forms the gpIIb/IIIa complex, which acts as a receptor for fibrinogen, von Willebrand factor (vWf), fibronectin, and vitronectin on activated platelets. With the CD51 antigen (VNR α-chain or αv), the CD61 antigen forms the VNR, which mediates activation-independent cell adhesion to vitronectin, vWf, fibrinogen, and thrombospondin. The CD61 antigen is found on all normal resting and activated platelets. Platelets from individuals with Glanzmann's thrombasthenia show a >90% reduction of binding of CD61, and heterozygote carriers of the disorder show approximately 50% reduction. The CD61 antigen is also found on endothelial cells, megakaryocytes, and on some myeloid, erythroid, and T-lymphoid leukemic cell lines.

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

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
554656	Stain Buffer (FBS)	500 mL	
554657	Stain Buffer (BSA)	500 mL	
563794	Brilliant Stain Buffer	100 Tests	
555899	Lysing Buffer	100 mL	
349202	Lysing Solution 10X Concentrate	100 NA	
564219	Human BD Fc Block™	50 mg	
612758	BUV737 Mouse IgG1, κ Isotype Control	50 µg	X40

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.

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