

Technical Data Sheet

BV711 Mouse Anti-Human CD61

Product Information

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| Material Number: | 745535 |
| 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™ BV711 which is part of the BD Horizon Brilliant™ Violet family of dyes. This dye is a tandem fluorochrome of BD Horizon BV421 with an Ex Max of 405-nm and an acceptor dye with an Em Max at 711-nm. BD Horizon BV711 can be excited by the violet laser and detected in a filter used to detect Cy™5.5 / Alexa Fluor® 700-like dyes (eg, 712/20-nm filter). Due to the excitation and emission characteristics of the acceptor dye, there may be moderate spillover into the Alexa Fluor® 700 and PerCP-Cy5.5 detectors. However, the spillover can be corrected through compensation as with any other dye combination.

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 BV711 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 |
|----------------|-------------------------------------|--------|-------|
| 349202 | Lysing Solution 10X Concentrate | 100 NA | |
| 563044 | BV711 Mouse IgG1, k Isotype Control | 50 µg | X40 |
| 564219 | Human BD Fc Block™ | 50 mg | |

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| 554656 | Stain Buffer (FBS) | 500 mL |
| 554657 | Stain Buffer (BSA) | 500 mL |
| 563794 | Brilliant Stain Buffer | 100 Tests |
| 555899 | Lysing Buffer | 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 Violet 711 is covered by one or more of the following US patents: 8,110,673; 8,158,444; 8,227,187; 8,455,613; 8,575,303; 8,354,239.
10. Cy is a trademark of GE Healthcare.
11. Alexa Fluor® is a registered trademark of Life Technologies Corporation.

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