9853 Pacific Heights Blvd.
Suite D. San Diego,
CA 92121, USA
Tel: 858-263-4982
Email: info@abeomics.com

30-2934: Anti-Human C3d Monoclonal Antibody (Clone: BGRL11)

Clonality :	Monoclonal
Clone Name :	BGRL11
Application :	FACS
Reactivity :	Human
Gene :	C3d
Gene ID :	718
Uniprot ID :	P01024
Format :	Purified
Alternative Name :	complement component C3d
Isotype :	Mouse IgM
Immunogen Information :	Intact human erythrocytes coated with C3/C4

Description

Specificity: The mouse monoclonal antibody BGRL11 recognizes human complement fragment C3d.

Description: Complement component C3 plays a key role in the activation of complement system. In classical complement system pathway the activated C2 and C4 form classical C3-convertase (C4b2b) which cleaves C3 into C3a and C3b. In alternative complement system pathway C3 is cleaved by alternative C3-convertase (C3bBb), composed of C3b (which can be generated also by spontaneous hydrolysis of C3) and the activated form of factor B. C3b activates downstream cascade leading to formation of pores in the plasma membrane of attacked cell. C3b and its proteolytically inactive form iC3b also serve as important opsonins. C3b can generate C3f, as well as the iC3b can be further cleaved into C3c, C3d and C3g. Complement system is regulated by effective inactivation of free C3b by factor H and factor I. C3b attached to the surface of its target is protected from this inactivation. Complement system is also regulated by other proteins, e.g. CD35, CD46, CD55, or CD59. Undesired activation of complement cascade can lead to severe diseases such as PNH, rheumatoid arthritis, macular degeneration and other. Recently it has been demonstrated to take part in complications associated with Covid-19.

Product Info

Amount :	0.1 mg
Purification :	Purified by protein-A affinity chromatography.
Content :	**Concentration**: 1 mg/ml **Formulation**: Tris buffered saline (TBS), pH 8.0, 15 mM sodium azide
Storage condition :	Store at 2-8°C. Do not freeze.

Application Note

Flow cytometry: Recommended dilution: 0.5-4 µg/ml.

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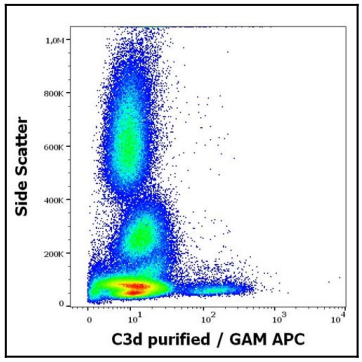

Fig 1: Flow cytometry surface staining pattern of human peripheral whole blood stained using anti-human C3d (BGRL11) purified antibody (concentration in sample 0.6 µg/ml, GAM APC).

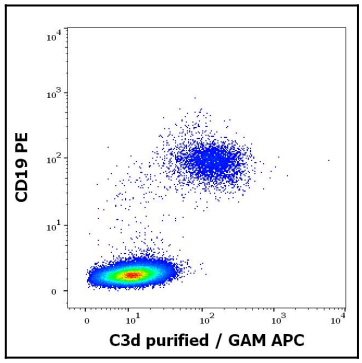

Fig 2: Flow cytometry multicolor surface staining pattern of human lymphocytes stained using anti-human CD19 (LT19) PE antibody (20 µl reagent / 100 µl of peripheral whole blood) and anti-human C3d (BGRL11) purified antibody (concentration in sample 0.6 µg/ml, GAM APC).

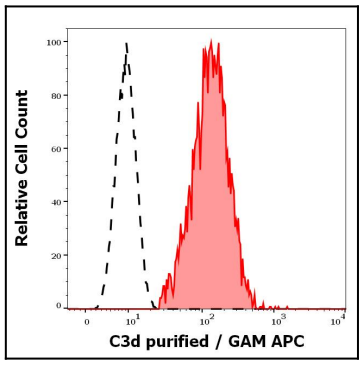

Fig 3: Separation of human C3d positive CD19 positive B cells (red-filled) from neutrophil granulocytes (black-dashed) in flow cytometry analysis (surface staining) of human peripheral whole blood stained using anti-human C3d (BGRL11) purified antibody (concentration in sample 0.6 µg/ml).