

CD3G

Purified Mouse Monoclonal Antibody
Catalog # AO2738a

Product Information

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| Application | WB, IHC, ICC, E |
| Primary Accession | P09693 |
| Reactivity | Human |
| Host | Mouse |
| Clonality | Monoclonal |
| Clone Names | 5B7B2 |
| Isotype | Mouse IgG1 |
| Calculated MW | 20469 |
| Immunogen | Purified recombinant fragment of human CD3G (AA: extra 23-116) expressed in E. Coli. |
| Formulation | Purified antibody in PBS with 0.05% sodium azide |

Additional Information

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| Gene ID | 917 |
| Other Names | T3G; IMD17; CD3-GAMMA |
| Dilution | WB~~ 1/500 - 1/2000 IHC~~1:100~500 ICC~~N/A E~~ 1/10000 |
| Storage | Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles. |
| Precautions | CD3G is for research use only and not for use in diagnostic or therapeutic procedures. |

Protein Information

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|-----------------|--|
| Name | CD3G |
| Synonyms | T3G |
| Function | Part of the TCR-CD3 complex present on T-lymphocyte cell surface that plays an essential role in adaptive immune response. When antigen presenting cells (APCs) activate T-cell receptor (TCR), TCR- mediated signals are transmitted across the cell membrane by the CD3 chains CD3D, CD3E, CD3G and CD247/CD3Z. All CD3 chains contain immunoreceptor tyrosine-based activation motifs (ITAMs) in their cytoplasmic domain. Upon TCR engagement, these motifs become phosphorylated by Src family protein tyrosine kinases |

LCK and FYN, resulting in the activation of downstream signaling pathways (PubMed:[2470098](#)). In addition to this role of signal transduction in T- cell activation, CD3G plays an essential role in the dynamic regulation of TCR expression at the cell surface (PubMed:[8187769](#)). Indeed, constitutive TCR cycling is dependent on the di-leucine-based (diL) receptor-sorting motif present in CD3G.

Cellular Location

Cell membrane; Single-pass type I membrane protein

References

1.Scand J Immunol. 2014 Nov;80(5):354-61.2.DNA Cell Biol. 2012 Sep;31(9):1480-5.

Images

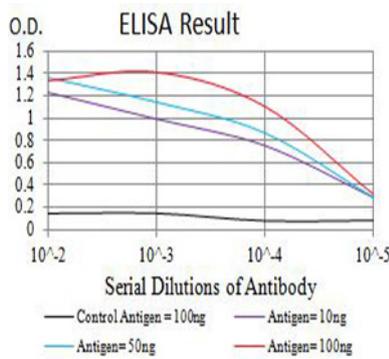


Figure 1:Black line: Control Antigen (100 ng);Purple line: Antigen (10ng); Blue line: Antigen (50 ng); Red line:Antigen (100 ng)

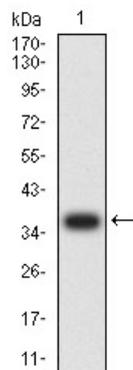


Figure 2:Western blot analysis using CD3G mAb against human CD3G (AA: extra 23-116) recombinant protein. (Expected MW is 36.6 kDa)

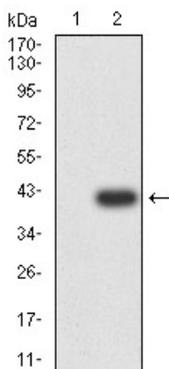


Figure 3:Western blot analysis using CD3G mAb against HEK293 (1) and CD3G (AA: extra 23-116)-hIgGFc transfected HEK293 (2) cell lysate.

Figure 4:Western blot analysis using CD3G mouse mAb against Jurkat (1) cell lysate.

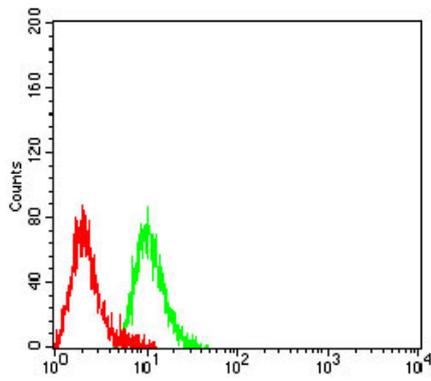
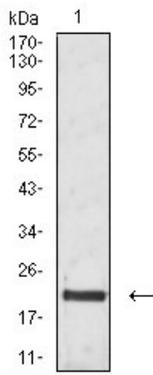


Figure 5: Flow cytometric analysis of Raji cells using CD3G mouse mAb (green) and negative control (red).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.