

FcgR4/CD16-2 Protein, Mouse (HEK293, His)

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| Cat. No.: | HY-P76918 |
| Synonyms: | Low affinity immunoglobulin gamma Fc region receptor IV; CD16-2; FcgammaRIV; Fcrl3 |
| Species: | Mouse |
| Source: | HEK293 |
| Accession: | A0A0B4J1G0 (Q19-Q203) |
| Gene ID: | 246256 |
| Molecular Weight: | 25-35 kDa |

PROPERTIES

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| Biological Activity | Measured by its binding ability in a functional ELISA. Immobilized mouse FCGR4 at 10 µg/mL (100 µl/well) can bind recombinant human IgG1 (Fc) . The EC ₅₀ of human IgG1 (Fc) is 0.11-0.25 µg/mL. |
| Appearance | Lyophilized powder. |
| Formulation | Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. |
| Endotoxin Level | <1 EU/µg, determined by LAL method. |
| Reconstitution | It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O. |
| Storage & Stability | Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage. |
| Shipping | Room temperature in continental US; may vary elsewhere. |

DESCRIPTION

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| Background | <p>The FcγR4/CD16-2 Protein serves as a receptor for the constant Fc fragment of immunoglobulin gamma (IgG), exhibiting intermediate affinity for both IgG2a and IgG2b. It recognizes neutralizing virus-specific IgGs on infected cells, triggering antibody-dependent cellular cytotoxicity (ADCC) and conferring protection against lethal influenza virus infection. On splenic dendritic cells, FcγR4 efficiently uptakes antigen immune complexes, directing them into MHC class I and II antigen presentation pathways, thereby enhancing CD4-positive and CD8-positive T cell immune responses. Additionally, FcγR4 plays a crucial role in mediating neutrophil activation by IgG complexes, acting redundantly with FCGR2A. It contributes to bone resorption by enhancing osteoclast differentiation upon binding to IgG2a. Furthermore, FcγR4 functions as a receptor for the Fc region of immunoglobulin epsilon (IgE), binding to both a and b allotypes of IgE and promoting macrophage-mediated phagocytosis, antigen presentation to T cells, and the late phase of cutaneous allergic reactions. It forms a heterooligomeric complex with ITAM-containing signaling subunits FCER1G and interacts with the Fc region of antigen-complexed IgG.</p> |
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Caution: Product has not been fully validated for medical applications. For research use only.

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