

Product Data Sheet

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

Cat. No.: HY-P76916

Synonyms: Low affinity immunoglobulin gamma Fc region receptor IV; CD16-2; FcgammaRIV; Fcrl3

Species: **HEK293** Source:

Accession: A0A0B4J1G0 (Q19-Q203)

Gene ID: 246256 **Molecular Weight:** 25-35 kDa

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Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μ m 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.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 $\mu g/mL$ 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

Background

The FcyR4/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, FcyR4 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, FcyR4 functions as a receptor for the Fc region of immunoglobulin epsilon (IgE), binding to both a and b allotypes of IgE and promoting macrophagemediated 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 antigencomplexed IgG.

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