CD23/Fc epsilon RII Protein, Mouse (HEK293, His)

Cat. No.:	HY-P74321
Synonyms:	Low affinity immunoglobulin epsilon Fc receptor; BLAST-2; FCER2; CD23A
Species:	Mouse
Source:	HEK293
Accession:	P20693-1 (E50-P331)
Gene ID:	14128
Molecular Weight:	33-43 kDa

PROPERTIES

Biological Activity	Immobilized recombinant mouse CD23 at 5 μg/ml (100 μl/well) can bind Biotinylated Recombinant mouse IgE Protein. The ED_{50} for this effect is 0.1294 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. or 20 mM PB, 150 mM NaCl, pH 7.4.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O.
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 CD23/Fc epsilon RII protein serves as a low-affinity receptor for immunoglobulin E (IgE) and CR2/CD21, playing crucial roles in the regulation of IgE production and B cell differentiation. On B cells, it initiates IgE-dependent antigen uptake and presentation to T cells, contributing to immune response modulation. In macrophages, CD23, upon binding IgE and cross-linking with antigens, triggers intracellular killing of parasites through the activation of the L-Arginine-nitric oxide pathway. Existing as a homotrimer, CD23 interacts with IGHE, regulating IgE homeostasis through its C-type lectin domain. Additionally, CD23 interacts with CR2/CD21 through its C-terminus, forming a connection via the Sushi domains 1 and 2. These interactions underscore the multifaceted involvement of CD23 in immunological processes, influencing both B cell function and macrophage-mediated responses.

Caution: Product has not been fully validated for medical applications. For research use only.

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