Integrin alpha M beta 2 Protein, Human (HEK293, His)

Cat. No.:	HY-P700759
Synonyms:	αMβ2; ITGAM&ITGB2; ITGAM; ITGB2; Mac-1; complement receptor-3 (CR3)
Species:	Human
Source:	HEK293
Accession:	P11215-1 (F17-N1104)&P05107-1 (Q23-N700)
Gene ID:	/&3689
Molecular Weight:	140-160 kDa (ITGAM) & 90-100 kDa (ITGB2)

PROPERTIES

Biological Activity	Immobilized Human Integrin alpha M beta 2, His Tag at 1 μg/mL (100 μl/well) on the plate. Dose response curve for Anti-ITGB2 Antibody, hFc Tag with the EC_{50} of 13.7 ng/mL determined by ELISA.
Appearance	Lyophilized powder
Formulation	Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4. Normally 8% trehalose is added as protectant before lyophilization.
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	Integrin alpha M beta 2, also known as ITGAM/ITGB2, plays a crucial role in mediating adhesive interactions of monocytes, macrophages, and granulocytes, facilitating the uptake of complement-coated particles and pathogens. It serves as the receptor for the iC3b fragment of the third complement component and likely recognizes the R-G-D peptide in C3b. Additionally, this integrin complex acts as a receptor for fibrinogen, factor X, and ICAM1, recognizing specific peptides within fibrinogen gamma chain. ITGAM/ITGB2 regulates neutrophil migration and is essential for CD177-PRTN3-mediated activation of TNF-primed neutrophils. It may also contribute to the regulation of phagocytosis-induced apoptosis in extravasated neutrophils and play a role in mast cell development. Furthermore, in conjunction with TYROBP/DAP12, it is required in microglia to control the production of superoxide ions, promoting neuronal apoptosis during brain development. The interaction with various proteins, including JAM3 and THBD, highlights the multifaceted functions of Integrin alpha M beta 2 in cellular processes. Additionally, its association with complement factor H/CFH facilitates neutrophil adhesion to pathogens, contributing to pathogen clearance.

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

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