

## FCGRT-B2M Heterodimer Protein, Cynomolgus (HEK293, His)

<b>Cat. No.:</b>	HY-P76920
<b>Synonyms:</b>	FCGRT-B2M Heterodimer Protein; IgG receptor FcRn large subunit p51; Beta-2-microglobulin
<b>Species:</b>	Cynomolgus
<b>Source:</b>	HEK293
<b>Accession:</b>	Q8SPV9 (A24-S297)&Q8SPW0 (I21-M119)
<b>Gene ID:</b>	102128913&101867173
<b>Molecular Weight:</b>	Approximately 35&12 kDa

### PROPERTIES

<b>AA Sequence</b>	<pre> AESHLSLLYH   LTAVSSPAPG   TPAFWVSGWL   GPQQYLSYDS LRGQAEP CGA   WVWENQVSWY   WEKET TDLRI   KEKLFLEAFK ALGGKGPYTL   QGLLGCELS P   DNTSVPTAKF   ALNGEEFMNF DLKQGTWGGD   WPEALAI SQR   WQQQDKAANK   ELTFLLFSCP HRLREHLERG   RGNLEWKEPP   SMRLKARPGN   PGFSVLTCSA FSFYPP ELQL   RFLRNGMAAG   TGQGDFGPNS   DGSFHASSSL TVKSGDEHHY   CCI VQHAGLA   QPLRVELETP   AKSS &amp;             IQRTPKIQVY   SRHPPENKGP   NFLNCYVSGF HPSDIEVDLL   KNGEKM GKVE   HSDLSFSKDW   SFYLLLYTEF TPNEKDEYAC   RVNHV T LSGP   RTVKWDRDM </pre>
<b>Biological Activity</b>	Measured by its binding ability in a functional ELISA. When FCRN-B2M is immobilized at 2 µg/mL (100 µL/well), can bind Biotinylated Human IgG1. The ED <sub>50</sub> for this effect is 68.15 ng/mL.
<b>Appearance</b>	Lyophilized powder
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4.
<b>Endotoxin Level</b>	<1 EU/µg, determined by LAL method.
<b>Reconstitution</b>	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH <sub>2</sub> O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
<b>Storage &amp; Stability</b>	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.
<b>Shipping</b>	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

---

**Background**

The FCGRT protein is a cell surface receptor that plays a critical role in transferring passive humoral immunity from the mother to the newborn. It accomplishes this by binding to the Fc region of monomeric immunoglobulin gamma and facilitating its selective uptake from milk. Within the intestinal epithelium, the FCGRT-B2M heterodimer binds to IgG at the apical surface, forming FcRn-IgG complexes that are transcytosed across the epithelium, releasing IgG into the bloodstream or tissue fluids. This receptor continues to contribute to effective humoral immunity throughout life by recycling IgG and prolonging its half-life in circulation. Mechanistically, the binding of monomeric IgG to FCGRT-B2M in acidic endosomes of endothelial and hematopoietic cells enables the recycling of IgG to the cell surface for release into the circulation. Additionally, the FCGRT-B2M heterodimer plays a role in regulating the homeostasis of albumin, the most abundant circulating protein, by interacting with it. The FCGRT-B2M complex consists of two subunits, p51 and p14 (equivalent to beta-2-microglobulin), forming an MHC class I-like heterodimer.

---

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: [tech@MedChemExpress.com](mailto:tech@MedChemExpress.com)

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA