

## FCRN-B2M Protein, Human (Biotinylated, HEK293, His-Avi)

Cat. No.:	HY-P72368
Synonyms:	IgG receptor FcRn; Neonatal Fc receptor; FCRN
Species:	Human
Source:	HEK293
Accession:	AAF72596 (A24-S297)&P61769 (I21-M119)
Gene ID:	2217&567
Molecular Weight:	35&13 kDa

### PROPERTIES

AA Sequence	<pre> AESHLSLLYH   LTAVSSPAPG   TPAFWVSGWL   GPQQYLSYNS LRGEAEP CGA   WVWENQVSWY   WEKET TDLRI   KEKLFLEAFK ALGGKGPYTL   QGLLGCELGP   DNTSVPTAKF   ALNGEEFMNF DLKQGTWGGD   WPEALAI SQR   WQQQDKAANK   ELTFLLFSCP HRLREHLERG   RGNLEWKEPP   SMRLKARPSS   PGFSVLTCSA FSFYPP ELQL   RFLRNLAAAG   TGQGDFGPNS   DGSFHASSSL TVKSGDEHHY   CCI VQHAGLA   QPLRVELESP   AKSS&amp;IQ RTP KI QVYSRHPA   ENKSNFLNC   YVSGFHPSDI   EVDLLKNGER IEKVEHSDLS   FSKDWSFYLL   YYTEFTPTEK   DEYACRVNHV T L S Q P K I V K W   D R D M           </pre>
Biological Activity	Loaded Biotinylated Human FcRn Heterodimer-His-Avi on HIS1K Biosensor, can bind Anti-Human HER2 mAb (Human IgG1) with an affinity constant of 0.11 $\mu$ M as determined in BLI assay.
Appearance	Lyophilized powder
Formulation	Lyophilized from a 0.2 $\mu$ m filtered solution of 20mM PB, 6% Sucrose, 4% Mannitol, 0.05% Tween 80, pH 7.8
Endotoxin Level	<1 EU/ $\mu$ g, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 $\mu$ g/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).
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

IgG receptor FcRn large subunit p51 is an IgG Fc receptor with a molecular structure similar to MHC Class I and also binds to  $\beta$ -2 microglobulin. In rodents, FcRn was originally thought to be a receptor that transports maternal immunoglobulin G (IgG) from mother to newborn offspring via breast milk and is therefore known as a neonatal Fc receptor. FcRn has also been shown to play a role in regulating IgG and serum albumin conversion, and neonatal Fc receptor expression is up-regulated by pro-inflammatory cytokines TNF and down-regulated by IFN- $\gamma$ . In the acidic endosomes of endothelial and hematopoietic cells, monomer IgG binds to FcRn, circulates IgG to the cell surface, where it is released into the circulation, regulating, in addition to IgG, homeostasis of the circulating protein albumin /ALB. The up-regulated expression of FCGRT in bladder cancer may serve as a key neutrophil gene associated with poor prognosis. FCGRT overexpression was also associated with decreased PD-L1 expression and decreased tumor mutation load (TMB) level<sup>[1][2][3][4][5][6]</sup>.

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

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