

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

Cat. No.:	HY-P70601
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:	Approximately 32 & 12 kDa

### PROPERTIES

#### AA Sequence

A 1 :

A E S H L S L L Y H	L T A V S S P A P G	T P A F W V S G W L	G P Q Q Y L S Y N S
L R G E A E P C G A	W V W E N Q V S W Y	W E K E T T D L R I	K E K L F L E A F K
A L G G K G P Y T L	Q G L L G C E L G P	D N T S V P T A K F	A L N G E E F M N F
D L K Q G T W G G D	W P E A L A I S Q R	W Q Q Q D K A A N K	E L T F L L F S C P
H R L R E H L E R G	R G N L E W K E P P	S M R L K A R P S S	P G F S V L T C S A
F S F Y P P E L Q L	R F L R N G L A A G	T G Q G D F G P N S	D G S F H A S S S L
T V K S G D E H H Y	C C I V Q H A G L A	Q P L R V E L E S P	A K S S

A 2 :

I Q R T P K I Q V Y	S R H P A E N G K S	N F L N C Y V S G F	H P S D I E V D L L
K N G E R I E K V E	H S D L S F S K D W	S F Y L L Y Y T E F	T P T E K D E Y A C
R V N H V T L S Q P	K I V K W D R D M		

**Biological Activity** Measured by its binding ability in a functional ELISA. When FCRN-B2M is immobilized at 2.00 µg/mL (100 µL/well), can bind Biotinylated Human IgG1. The ED<sub>50</sub> for this effect is 81.59 ng/mL.

**Appearance** Lyophilized powder

**Formulation** Lyophilized from a 0.2 µm filtered solution of 50 mM HEPES, 150 mM NaCl, 0.02% Tween20, pH 7.4 or PBS, pH 7.4.

**Endotoxin Level** <1 EU/µg, determined by LAL method.

**Reconstitution** 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).

**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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