

# Human FcRn Protein, Ultra Low Endotoxin

Cat. No. FRN-HM101-UL

## Description

<b>Source</b>	Recombinant Human FcRn Protein is expressed from HEK293 with His tag at the C-Terminus of FCGR2B. It contains Ala24-Ser297(FCGR2B) and Ile21-Met119(B2M).
<b>Accession</b>	P55899-1(FCGR2B)&P61769-1(B2M)
<b>Molecular Weight</b>	The protein has a predicted MW of 31.5 kDa (FCGR2B)&11.7 kDa (B2M). Due to glycosylation, the protein migrates to 35-40 kDa (FCGR2B)&13-14 kDa (B2M) based on Bis-Tris PAGE result.
<b>Endotoxin</b>	Less than 0.01 EU per µg by the LAL method.
<b>Purity</b>	> 95% as determined by Bis-Tris PAGE > 95% as determined by HPLC

## Formulation and Storage

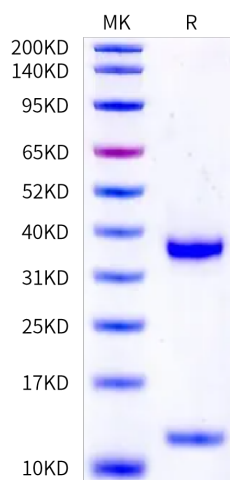
<b>Formulation</b>	Lyophilized from 0.22 µm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
<b>Reconstitution</b>	Dissolve the lyophilized protein in distilled water. Please refer to the Certificate of Analysis for detailed instructions.
<b>Storage</b>	-20 to -80°C for 12 months as supplied from date of receipt. -80°C for 3 months after reconstitution. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.

## Background

The neonatal Fc receptor (FCRN) is an approximately 45 kDa transmembrane glycoprotein with structural homology to MHC class I proteins. It is widely expressed in endothelial and epithelial cells and plays an important role in IgG homeostasis and antigen presentation by dendritic cells. FCGR2B&B2M heterodimer protein (FcRn complex) consist of two subunits: p51, and p14, and forms an MHC class I-like heterodimer.

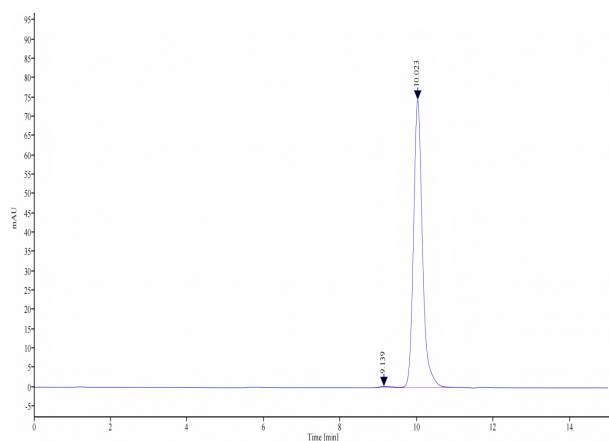
## Assay Data

### Bis-Tris PAGE



Human FcRn on Bis-Tris PAGE under reduced condition. The purity is greater than 95%.

### SEC-HPLC



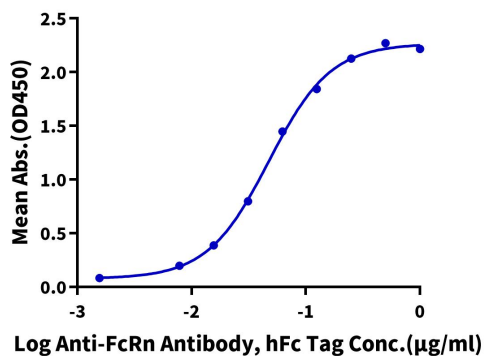
The purity of Human FcRn is greater than 95% as determined by SEC-HPLC.

Assay Data

ELISA Data

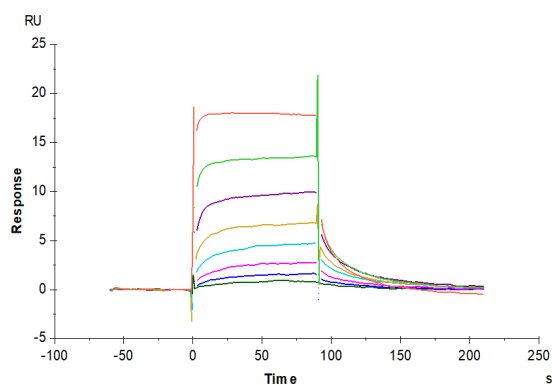
**Human FcRn, His Tag ELISA**

0.1µg Human FcRn, His Tag Per Well



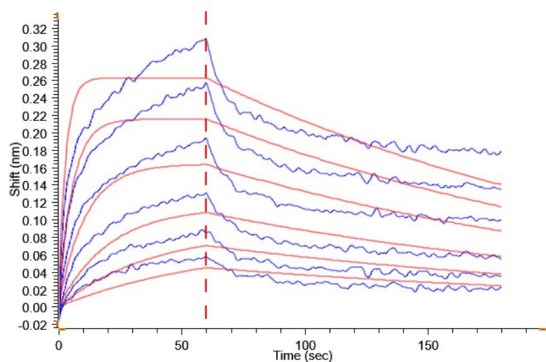
Immobilized Human FcRn, His Tag at 1 µg/ml (100 µl/well) on the plate. Dose response curve for Anti-FcRn Antibody, hFc Tag with the EC50 of 47.5 ng/ml determined by ELISA (QC Test).

SPR Data



Human FcRn, His Tag captured on CM5 Chip via anti-his antibody can bind Human IgG1 Fc, No Tag with an affinity constant of 0.28 µM as determined in SPR assay (Biacore T200).

BLI Data



Loaded Human FcRn, His Tag on Anti-His-Biosensor can bind Human IgG4 Fc, No Tag (Cat. IGG-HM004) with an affinity constant of 30.30 nM as determined in BLI assay.