

# Human GPA33/A33 Protein

Cat. No. GPA-HM433

## Description

<b>Source</b>	Recombinant Human GPA33/A33 Protein is expressed from HEK293 with His tag and Avi tag at the C-Terminus. It contains Ile22-Val235.
<b>Accession</b>	Q99795-1
<b>Molecular Weight</b>	The protein has a predicted MW of 26.5 kDa. Due to glycosylation, the protein migrates to 28-40 kDa based on Bis-Tris PAGE result.
<b>Endotoxin</b>	Less than 1EU per $\mu\text{g}$ by the LAL method.
<b>Purity</b>	> 95% as determined by Bis-Tris PAGE > 95% as determined by HPLC

## Formulation and Storage

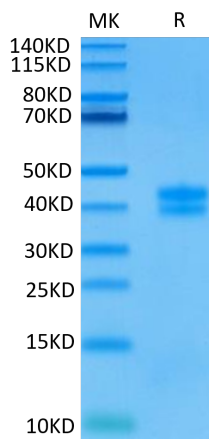
<b>Formulation</b>	Lyophilized from 0.22 $\mu\text{m}$ filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
<b>Reconstitution</b>	Centrifuge the tube before opening. Reconstituting to a concentration more than 100 $\mu\text{g}/\text{ml}$ is recommended. Dissolve the lyophilized protein in distilled water.
<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

Glycoprotein A33 (GPA33) is also known as Cell surface A33 antigen, is a single-pass type I membrane protein which is expressed in normal gastrointestinal epithelium and in 95% of colon cancers. GPA33 The predicted mature protein has a 213-amino acid extracellular region, a single transmembrane domain, and a 62-amino acid intracellular tail. The sequence of the extracellular region contains 1 Ig-like C2-type (immunoglobulin-like) domain and 1 Ig-like V-type (immunoglobulin-like) domain characteristic of the CD2 subgroup of the immunoglobulin (Ig) superfamily, which contains. GPA33 may play a role in cell-cell recognition and signaling.

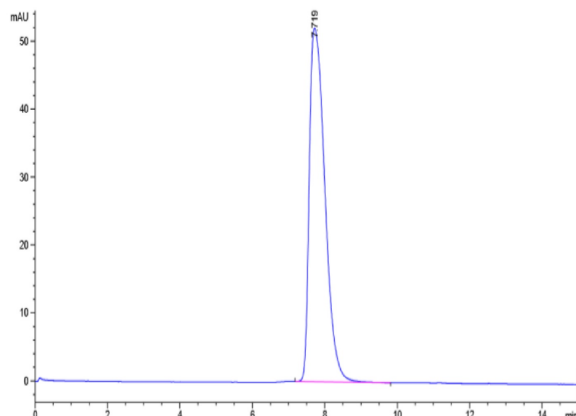
## Assay Data

### Bis-Tris PAGE



Human GPA33 on Bis-Tris PAGE under reduced condition. The purity is greater than 95%.

### SEC-HPLC



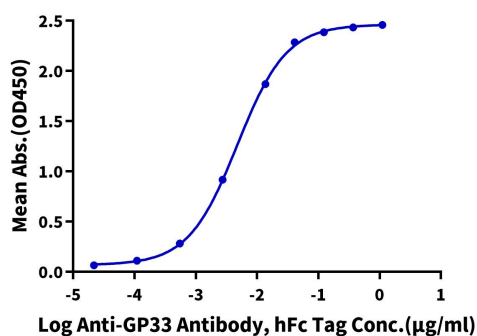
The purity of Human GPA33 is greater than 95% as determined by SEC-HPLC.

Assay Data

ELISA Data

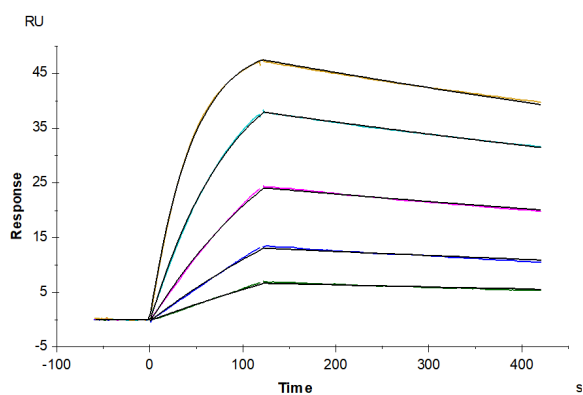
**Human GPA33, His Tag ELISA**

0.1µg Human GPA33, His Tag Per Well



Immobilized Human GPA33, His Tag at 1µg/ml (100µl/well) on the plate. Dose response curve for Anti-GPA33 Antibody, hFc Tag with the EC50 of 4.8ng/ml determined by ELISA (QC Test).

SPR Data



Anti-GPA33 Antibody, hFc Tag captured on CM5 Chip via Protein A can bind Human GPA33, His Tag with an affinity constant of 0.69 nM as determined in SPR assay (Biacore T200).