## Recombinant Mouse GPA33/Glycoprotein A33 Protein (His Tag)

### Catalog No. PKSM040615

Note: Centrifuge before opening to ensure complete recovery of vial contents.

Description	
Synonyms	2010310L10Rik;2210401D16Rik;BB116197
Species	Mouse
Expression Host	HEK293 Cells
Sequence	Met 1-Ile 235
Accession	NP_067623.1
Calculated Molecular Weight	25.4 kDa
Observed molecular weight	35-40 kDa
Tag	C-His
Bioactivity	Not validated for activity
Properties	
Purity	> 95 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per $\mu$ g of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile PBS, pH 7.4 Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.
Data	

KDa	MK	R
116		
66.2	-	
45.0	-	_
35.0	-	-
25.0	-	
18.4	-	
14.4	-	

> 95 % as determined by reducing SDS-PAGE.

## Background

Cell surface A33 antigen, also known as glycoprotein A33, is a single-pass type I membrane protein which is expressed in normal gastrointestinal epithelium and in 95% of colon cancers. GPA33 contains oneIg-like C2-type (immunoglobulin-

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like) domain and oneIg-like V-type (immunoglobulin-like) domain. The open reading frame encodes a 319-amino acid polypeptide having a putative secretory signal sequence and 3 potential glycosylation sites. The predicted mature protein has a 213-amino acid extracellular region, a single transmembrane domain, and a 62-amino acid intracellular tail. Intracellular traffic and recycling to the cell surface appear to play a major role in GPA33 function and to have an influence on its surface density superseding translational regulation. GPA33 has become a promising target of immunologic therapy strategies, but its biologic function and potential role in tumorigenesis are unknown. EpCAM protein and GPA33 mRNA expressions are specific and sensitive markers of Barrett's metaplasia (BM). GPA33 may also play a role in cell-cell recognition and signaling.

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