

**Synonym**

LRRC32 & TGF-beta 1,LRRC32&TGFB1

**Source**

Mouse LRRC32&TGFB1 Heterotrimer protein, His Tag&Tag Free (GA1-M52W2) is expressed from human 293 cells (HEK293). It contains AA Ile 18 - Asn 628 (LRRC32) & Leu 30 - Ser 390 (TGF-beta 1) (Accession # [G3XA59-1](#)(LRRC32) & [P04202-1](#)(TGF-beta)).

**Molecular Characterization**

LRRC32 (Ile 18 - Asn 628) G3XA59-1	Poly-his
TGF-beta 1 (Leu 30 - Ser 390) P04202-1	

Mouse LRRC32&TGFB1 Heterotrimer Protein, His Tag&Tag Free (the molar ratio of LRRC32 & TGF-beta 1 equals 1:2) is produced by co-expression of LRRC32 and TGF-beta 1, which has a calculated MW of 68.7 kDa (LRRC32), 28.5 (LAP) and 12.8 kDa (mature TGF-beta 1) respectively. LRRC32 is fused with a polyhistidine tag at the C-terminus and TGF-beta 1 contains no tag. The reducing (R) Heterotrimer protein migrates as 80 kDa (LRRC32), 40 kDa (LAP) and 14 kDa (mature TGF-beta 1) due to glycosylation respectively.

**Endotoxin**

Less than 1.0 EU per µg by the LAL method.

**Purity**

>95% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

**Formulation**

Lyophilized from 0.22 µm filtered solution in PBS, pH7.4. Normally trehalose is added as protectant before lyophilization.

Contact us for customized product form or formulation.

**Reconstitution**

Please see Certificate of Analysis for specific instructions.

*For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.*

**Storage**

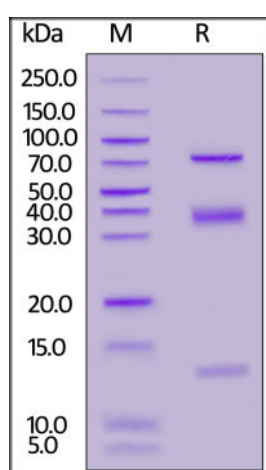
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*Please avoid repeated freeze-thaw cycles.*

This product is stable after storage at:

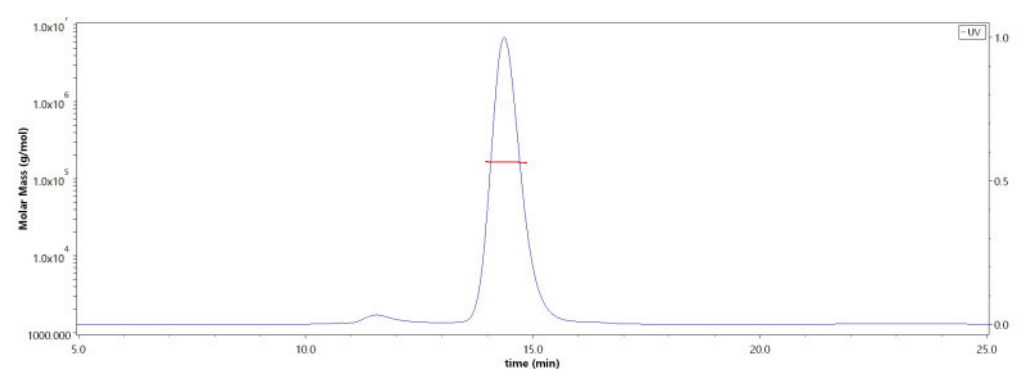
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

**SDS-PAGE**



Mouse LRRC32&TGFB1 Heterotrimer protein, His Tag&Tag Free on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.

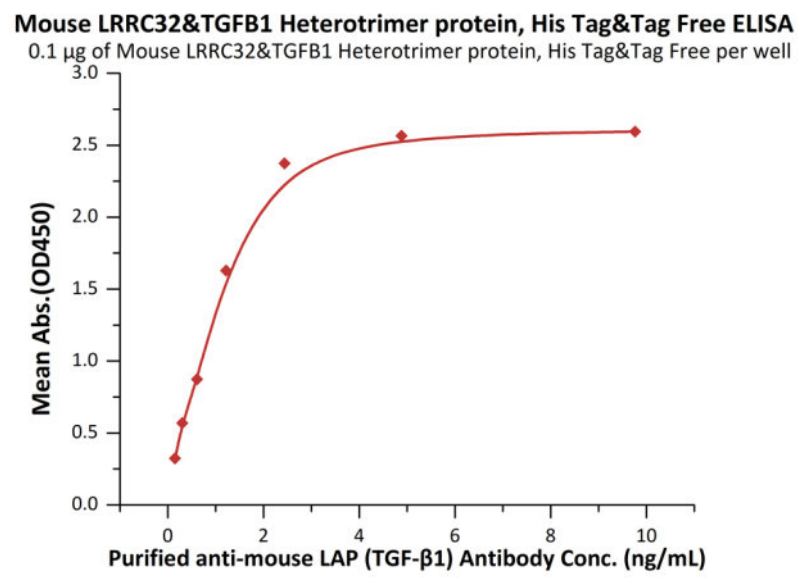
**SEC-MALS**



The purity of Mouse LRRC32&TGFB1 Heterotrimer protein, His Tag&Tag Free (Cat. No. GA1-M52W2) was more than 90% and the molecular weight of this protein is around 155-170 kDa verified by SEC-MALS.

[Report](#)

**Bioactivity-ELISA**



Immobilized Mouse LRRC32&TGFB1 Heterotrimer protein, His Tag&Tag Free at 1 µg/mL (100 µL/well) can bind Purified anti-mouse LAP (TGF-β1) Antibody with a linear range of 0.2-1 ng/mL (QC tested).

## Background

GARP (LRRC32) is a transmembrane protein that binds latent-TGF-β1 and tethers it on the Treg surface. and has been proved to promote the activation and secretion of transforming growth factor β (TGF-β). The expression of GARP is highly on the surface activated Tregs and increases the suppressive function of Tregs.

Additionally, GARP can bind to latent transforming growth factor β (TGF-β), thus promoting secretion and activation of TGF-β. TGF-β plays a critical rule for homeostasis and function of Tregs. Notably, it has been also observed that fibroblasts and endothelial cell lines that express GARP/latent TGF-β1 complexes do not activate TGF-β1. However, it cannot be excluded that specific stimuli are required to trigger TGF-β1 activation from complexes on the surface of these cell types.

## Clinical and Translational Updates

Please contact us via [TechSupport@acrobiosystems.com](mailto:TechSupport@acrobiosystems.com) if you have any question on this product.