

Human TPBG(5T4) Protein; His Tag

Product Information

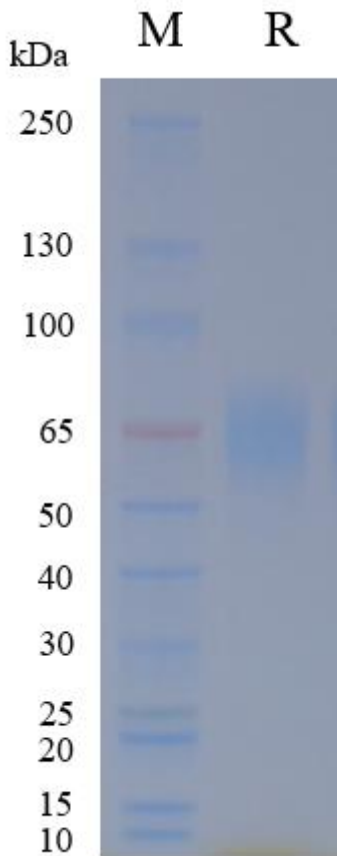
Product Name	Human TPBG(5T4) Protein; His Tag
Storage temp	Store at $\leq -70^{\circ}\text{C}$, stable for 6 months after receipt. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.
Catalog# / Size	GM-88571RP-100 / 100 μg GM-88571RP-1000 / 1 mg

Protein Information

Alternative Names	M6P1, 5T4AG, WAIF1, 5T4 oncofetal antigen, Trophoblast glycoprotein, 5T4 oncofetal trophoblast glycoprotein
Source	Human TPBG(5T4) Protein; His Tag (GM-88571RP) is expressed from human 293 cells (HEK-293). It contains AA Ser 32 - Ser 355(Accession # Q13641-1). This protein carries a His tag at the C-terminus.
Purity	> 95% as determined by SDS-PAGE
Endotoxin	< 1 EU/ μg , determined by LAL gel clotting assay
Predicted Mol Mass	36.1 kDa
Formulation	Supplied as a 0.2 μm filtered solution of PBS, pH7.2-7.4.
Description	TPBG (5T4) protein is a transmembrane glycoprotein that belongs to the leucine-rich repeat (LRR) family. It is encoded by the TPBG gene and is a protein associated with embryonic development and tumor progression. TPBG protein was initially identified in trophoblast cells of the placenta and later detected in various cancer tissues including colorectal, gastric, breast, and ovarian cancers. TPBG protein regulates cell migration, epithelial-mesenchymal transition (EMT), and immune modulation by interacting with components of the Wnt/ β -catenin signaling pathway and the CXCR4 receptor. Trophoblast cells and cancer cells share important characteristics in tissue invasion, immune evasion, and metastasis, making them key players in embryonic development and malignant transformation. Research indicates that TPBG protein plays a significant role in promoting tumor cell invasion, enhancing metastatic potential, and modulating tumor immune microenvironment. Additionally, the expression of TPBG protein is associated with poor prognosis in multiple malignancies, as well as resistance to conventional therapies, making it a potential target for cancer immunotherapy and targeted therapy.

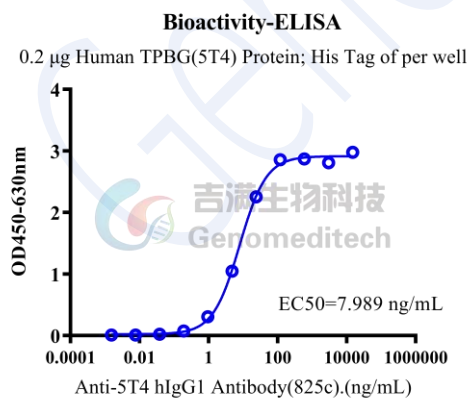
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SDS-PAGE



On SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.

Bioactivity-ELISA



Human TPBG(5T4) Protein; His Tag (Catalog # GM-88571RP) was immobilized at 2 µg/ml (100 µL/well). Increasing concentrations of Anti-5T4 hIgG1 Antibody (825c) (Catalog # GM-52191AB) were added.