Recombinant Human TGM2/Transglutaminase 2 Protein (His Tag)

Catalog No. PKSH031259

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

Description	
Synonyms	G-ALPHA-h;GNAH;HEL-S-45;TG2;TGC
Species	Human
Expression Host	Baculovirus-Insect Cells
Sequence	Met 1-Ala 687
Accession	NP_004604.2
Calculated Molecular Weight	79.6 kDa
Observed molecular weight	80 kDa
Tag	N-His
Bioactivity	Not validated for activity
Properties	
Purity	> 97 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per μ g of the protein as determined by the LAL method.
Endotoxin Storage	< 1.0 EU per μ g of the protein as determined by the LAL method. 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.
Endotoxin Storage Shipping	 < 1.0 EU per µg of the protein as determined by the LAL method. 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. This product is provided as lyophilized powder which is shipped with ice packs.
Endotoxin Storage Shipping Formulation	 < 1.0 EU per µg of the protein as determined by the LAL method. 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. This product is provided as lyophilized powder which is shipped with ice packs. Lyophilized from sterile 50mM Tris, 100mM NaCl, 2mM DTT, 10% glycerol, pH 8.0 Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Endotoxin Storage Shipping Formulation Reconstitution	 < 1.0 EU per µg of the protein as determined by the LAL method. 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. This product is provided as lyophilized powder which is shipped with ice packs. Lyophilized from sterile 50mM Tris, 100mM NaCl, 2mM DTT, 10% glycerol, pH 8.0 Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.



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Background

Protein-glutamine gamma-glutamyltransferase 2, also known as Tissue transglutaminase, Transglutaminase C,

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Transglutaminase-2, and TGM2, is a member of the transglutaminase superfamily. TGM2 plays a role in cell growth and survival through the anti-apoptosis signaling pathway. It is a calcium-dependent acyltransferase which also undergoes a GTP-binding/GTPase cycle even though it lacks any obvious sequence similarity with canonical GTP-binding (G) proteins. TGM2 is a multi-functional protein which catalyzes transamidation reactions or acts as a G-protein in intracellular signalling. As an enzyme which is responsible for the majority of transglutaminase (TG) activity in the brain, TGM2 is likely to play a modulatory role in nervous system development and has regulatory effect on neuronal cell death as well. Most importantly, numerous studies have presented data demonstrating that dysregulation of TGM2 may contribute to the pathogenesis of many neurodegenerative disorders, including Huntington's disease, Alzheimer's disease, Parkinson's disease and amyotrophic lateral sclerosis as well as nervous system injuries.

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