Recombinant Human TGM2/Transglutaminase 2 Protein (His Tag)

Catalog Number: PKSH031259

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

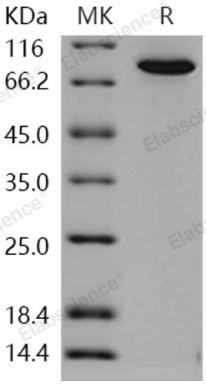
Description

Species	Human
Source	Baculovirus-Insect Cells-derived Human TGM2/Transglutaminase 2 protein Met 1-Ala 687, with an N-terminal His
Calculated MW	79.6 kDa
Observed MW	80 kDa
Accession	NP_004604.2
Bio-activity	Not validated for activity

Properties

Purity	> 97% as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per μg 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 50 mM Tris, 100 mM NaCl, 2 mM 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.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 97 % as determined by reducing SDS-PAGE.

Background

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