Data Sheet (Cat.No.TMPY-03980)

TargetMol

ECD Protein, Human, Recombinant (His & GST)

General Information

Synonyms:	HSGT1;ECD;GCR2;ecdysoneless cell cycle regulator
Protein Construction:	A DNA sequence encoding the human ECD (O95905-1) (Met1-Thr621) was expressed with the N-terminal polyhistidine-tagged GST tag at the N-terminus. Predicted N terminal: Met
Species:	Human
Expression Host:	Baculovirus Insect Cells
Accession:	O95905-1
Molecular Weight:	100.6 kDa (predicted); 88-108 kDa (reducing conditions)

QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 90 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing 20 mM Tris, 500 mM NaCl, 10% glycerol, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

ECD, also known as ecdysoneless homolog, belongs to the SGT1 family. It is highly expressed in muscle and heart. ECD is a novel promoter of mammalian cell cycle progression. This function is related to its ability to remove the repressive effects of Rb-family tumor suppressors on E2F transcription factors. It is a novel tumor-promoting factor that is differentially expressed in pancreatic cancer and potentially regulates glucose metabolism within cancer cells. ECD may also be a transcriptional activator required for the expression of glycolytic genes.

Reference

Badzek S. et al., 2011, Wien Klin Wochenschr. 123 (23-24): 726-31.
Zhao X. et al., 2012, Breast Cancer Res Treat. 134 (1): 171-80.
Dey P. et al., 2012, Clin Cancer Res. 18 (22): 6188-98.

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