Data Sheet (Cat.No.TMPY-06748)

TargetMol

UBA6 Protein, Human, Recombinant (GST)

General Information

Synonyms:	ubiquitin-like modifier activating enzyme 6;UBE1L2;MOP-4;E1-L2
Protein Construction:	A DNA sequence encoding the Human UBA6 (A0AVT1) (Met1-Asp1052) was expressed with an N-terminal GST tag. Predicted N terminal: Met
Species:	Human
Expression Host:	Baculovirus Insect Cells
Accession:	A0AVT1
Molecular Weight:	143.56 kDa (predicted); 117.02 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:	≥ 80 % 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 Tirs, 500 mM Nacl, 10% glycerol, 0.5 mM PMSF, 0.5 mM TCEP, 2 mM GSH, pH 7.5. 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

UBA6 (Ubiquitin Like Modifier Activating Enzyme 6) is a Protein Coding gene. The UBA6 gene, located on 4q13.2, is conserved in chimpanzee, Rhesus monkey, dog, cow, mouse, rat, chicken, zebrafish, and frog. Uba6 is a homolog of the ubiquitin-activating enzyme, Uba1, and activates two ubiquitin-like proteins (UBLs), ubiquitin and FAT10. UBA6 is an alternative enzyme for ubiquitin activation in vertebrates that plays a pivotal role in early mouse

development. UBA6 is widely expressed in the lymph node, appendix, and other tissues. Diseases associated with UBA6 include Ichthyosis, Congenital, Autosomal Recessive 4A, and Johanson-Blizzard Syndrome. Among its related pathways are the Metabolism of proteins and the Innate Immune System.

Reference

Kim MJ,et al.(2019) Early-stage paired housing improves social interaction in neuronal uba6-deficient mice. Biochem Biophys Res Commun 514 (2): 545-549.

Gavin JM,et al.(2012) Mechanistic studies on activation of ubiquitin and di-ubiquitin-like protein, fat10, by ubiquitin-like modifier activating enzyme 6, uba6. J Biol Chem 287 (19): 15512-15522.

Chen Z,et al.(2020) Down-regulation of uba6 exacerbates brain injury by inhibiting the activation of notch signaling pathway to promote cerebral cell apoptosis in rat acute cerebral infarction model. Mol Cell Probes 53 101612.

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