

USP30 Protein, Human, Recombinant (SUMO)

General Information

Synonyms:	ubiquitin specific peptidase 30
Protein Construction:	A DNA sequence encoding the human USP30 (AAX36198.1)(Thr48-Glu508) was fused with the SUMO tag at the N-terminus. Predicted N terminal: Met
Species:	Human
Expression Host:	Baculovirus Insect Cells
Accession:	AAX36198.1
Molecular Weight:	66.3 kDa (predicted); 87 kDa (reducing condition, due to glycosylation)

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, pH 8.0, 10% gly. 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

Ubiquitin specific peptidase 30, also known as USP30, is a deubiquitinating enzyme that is embedded in the mitochondrial outer membrane. Depletion of USP30 expression by RNA interference induced elongated and interconnected mitochondria, depending on the activities of the mitochondrial fusion factors mitofusins, without changing the expression levels of the key regulators for mitochondrial dynamics. Mitochondria were rescued from this abnormal phenotype by ectopic expression of USP30 in a manner dependent on its enzymatic activity. USP30

participates in the maintenance of mitochondrial morphology, a finding that provides new insight into the cellular function of deubiquitination.

Reference

Wilkinson K. (1997) Regulation of ubiquitin-dependent processes by deubiquitinating enzymes. FASEB J. 11(14): 1245-56.

Ventii KH, et al. (2009) Activity and Cellular Roles of Ubiquitin-Specific Deubiquitinating Enzymes. Annual Review of Biochemistry. 78:363-97.

Fang Y, et al. (2010) The potential role of ubiquitin c-terminal hydrolases in oncogenesis. Biochim Biophys Acta. 1806(1):1-6.

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