

## Ubiquitin Protein

Recombinant human protein expressed in *E. coli* cells

Catalog # U06-54N

Lot # V202-10

### Product Description

Recombinant human tag free ubiquitin (1-76) protein was expressed in *E. coli* cells. The gene accession number is [NM\\_018955](#).

### Gene Aliases

UBB, MGC8385, FLJ25987

### Formulation

Recombinant protein stored in 20 mM Tris-HCl pH 7.0, 150 mM NaCl, 0.1 mM EDTA, 1 mM DTT and 25% glycerol.

### Storage and Stability

Store product at -70°C. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.

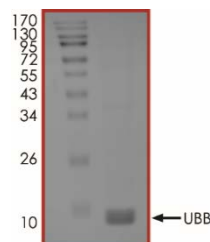
### Scientific Background

Ubiquitin is a highly-conserved protein that is widely expressed in eukaryotes (1). Ubiquitin is required for the rapid proteasomal degradation of intracellular proteins in an ATP-dependent manner. UBB+1 is a frameshift mutant form of ubiquitin, which not only inhibits the function of the proteasome machinery, but also accumulates in the cells associated with tauopathies, including Alzheimer's disease and polyglutamine diseases because of the cell's inability to clear cytotoxic misfolded amyloid-beta and phosphorylated-tau (2). UBB+1 also serves as an endogenous marker for proteasomal dysfunction in liver disease and muscle disease, where the protein may also have a role in pathogenesis.

### References

1. Baker, R.T. et al: The human ubiquitin gene family: structure of a gene and pseudogenes from the Ub B subfamily. *Nucleic Acids Res.* 15: 443-463, 1987.
2. Fratta, P. et al: Mutant ubiquitin UBB+1 is accumulated in sporadic inclusion-body myositis muscle fibers. *Neurology*. 2004 Sep 28;63(6):1114-7.

### Purity



The purity was determined to be >95% by densitometry. Approx. MW **10kDa**.

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Catalog #	U06-54N
Lot #	V202-10
Purity	>95%
Concentration	0.5 µg/µl
Stability	1yr at -70°C from date of shipment
Storage & Shipping	Store product at -70°C. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles. Product shipped on dry ice.

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