

## HA Ubiquitin

**Cat:** P20020

**Size:** 1mg

**Storage:** -20°C , avoid repeated freeze-thaw.

### Introduction

Ubiquitin is a 76 amino acid (aa) protein that is ubiquitously expressed in all eukaryotic organisms. Ubiquitin is highly conserved with 96% aa sequence identity shared between human and yeast Ubiquitin, and 100% aa sequence identity shared between human and mouse Ubiquitin. In mammals, four Ubiquitin genes encode for two Ubiquitinribosomal fusion proteins and two poly-Ubiquitin proteins. Cleavage of the Ubiquitin precursors by deubiquitinating enzymes gives rise to identical Ubiquitin monomers each with a predicted molecular weight of 8.6 kDa. Conjugation of Ubiquitin to target proteins involves the formation of an isopeptide bond between the C-terminal glycine residue of Ubiquitin and a lysine residue in the target protein. This process of conjugation, referred to as ubiquitination or ubiquitylation, is a multistep process that requires three enzymes: a Ubiquitin activating(E1) enzyme, a Ubiquitin conjugating (E2) enzyme, and a Ubiquitin ligase (E3). Ubiquitination is classically recognized as a mechanism to target proteins for degradation and as a result, Ubiquitin was originally named ATP dependent Proteolysis Factor 1 (APF1) . In addition to protein degradation, ubiquitination has been shown to mediate a variety of biological processes such as signal transduction, endocytosis, and postendocytic sorting . This Nterminal HAtagged Ubiquitin protein allows for the convenient detection or affinity purification of ubiquitinated proteins in vitro. The HA peptide sequence (YPYDVPDYA) is an epitope derived from the influenza Hemagglutinin protein. This tag is specifically recognized by anti HA antibodies and anti HA agarose.

### Product Parameter:

MW: 9.7kDa

Source: E. coli derived human Ubiquitin protein Contains an Nterminal HA (YPYDVPDYA) tag

Appearance: freeze-dried powder (Lyophilized from a solution in deionized water)

Solubility: Reconstitute at 10mg/mL in an aqueous solution.

Purity: > 95% by SDS - PAGE

Use: Recombinant Human HA-Ubiquitin can be conjugated to substrate proteins via the subsequent actions of a Ubiquitin activating (E1) enzyme, a Ubiquitin conjugating (E2) enzyme, and a Ubiquitin ligase (E3). Reaction conditions will need to be optimized for each specific application. We recommend an initial Recombinant Human HAUbiquitin concentration of 5-50 &mu;M.

Storage: Use a manual defrost freezer and avoid repeated freeze thaw cycles.

24 months from date of receipt, -20 to -70 &deg;C as supplied.

6 months, -20 to -70 &deg;C under sterile conditions after reconstitution.

**Note:**

1. Transport conditions: low temperature.
2. If the biochemical reagents produced are not specially marked, they are basically non-sterile packaging. If used in cell experiments, please pre-treat them in advance.
3. Once the solution is prepared, please pack and store to avoid product failure caused by repeated freezing and thawing.
4. Product information is for reference only, if you have any questions, please call 400-968-6088 for consultation.
5. This product is for scientific research only. Do not use for medicine, clinical diagnosis or treatment, food and cosmetics. Do not store in ordinary residential areas.
6. For your safety and health, please wear a laboratory coat and disposable gloves and masks.