# Recombinant Human Ubiquitin, K48R Mutation

**Cat. No.** RPS27A-19H **Lot. No.** (See product label)

## SPECIFICATION

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| **Product Overview** | Recombinant Human UbqtnK48R, featuring a Lys 48 to Arg 48 mutation, is expressed in*E.Coli*and useful for the reduction of poly-Ub chain length and conjugation rates.The protein contains 76 amino acids. |
| **Species** | Human |
| **Source** | E.coli |
| **Description** | Ubiquitin is a highly conserved 76 amino acid protein expressed in all eukariotes. Ub is found either in free form or conjugated to proteins as monomer or as chain of ubiquitin molecules. The most well characterised consequence of polyubiquitination is substrate degradation, while mono-ubiquitinated proteins are not degraded. Ubiquitin attachment to protein substrate is a complex process involving an ubiquitin activating enzyme (E1), an ubiquitin conjugating enzyme (E2) and an ubiquitin protein ligase (E3). The first ubiquitin moiety is transferred to the e-NH2 group of a Lys residue of the protein substrate to generate an isopeptide bond. In successive reactions, a poly ubiquitin chain is synthesized by processive transfer of additional activated moieties to Lys48 of the previously conjugated ubiquitin molecule. Ubiquitin K48R prevents the formation of poly ubiquitin chains via Lys48 linkages with mono ubiquitin molecules, avoiding the degradation of protein substrates. |
| **Formulation** | 500μg/700μl diluted in PBS plus 5% glycerol. |
| **Purity** | 95% by SDS-PAGE commassie blue staining gel. |

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| **Storage & Stability** | Store vial at -20℃to -80℃. When stored at the recommended temperature, this protein is stable for 12 months. |

## GENE INFORMATION

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| **Gene Name** | RPS27A ribosomal protein S27a [ Homo sapiens ] |
| **Synonyms** | RPS27A; ribosomal protein S27a; CEP80; UBA80; UBCEP1; UBCEP80; HUBCEP80; ubiquitin and ribosomal protein S27a; ubiquitin-CEP80; OTTHUMP00000200786; 40S ribosomal protein S27a; ubiquitin carboxyl extension protein 80 |
| **Gene ID** | 6233 |
| **mRNA Refseq** | NM_001135592 |
| **Protein Refseq** | NP_001129064 |
| **UniProt ID** | P62979 |
| **Chromosome Location** | 2p16 |
| **MIM** | 191343 |
| **Pathway** | Ribosome; Gene Expression; Influenza Infection; Metabolism of proteins |
| **Function** | metal ion binding; structural constituent of ribosome; zinc ion binding |

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