

Recombinant Human Ubiquitin, K48R Mutation

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

SPECIFICATION

Product Overview	Recombinant Human UbqtnK48R, featuring a Lys 48 to Arg 48 mutation, is expressed in <i>E. Coli</i> 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-NH ₂ 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°C to -80°C. When stored at the recommended temperature, this protein is stable for 12 months.

GENE INFORMATION
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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