

Ubiquitin Mutant K48R

Catalog#:P20003

DESCRIPTION	Mutation of lysine 48 to arginine renders ubiquitin (Ub) unable to form poly-Ub chains via lysine 48 linkages with other Ub molecules. Ub K48R can form an E1-catalyzed active thioester at the C-terminus allowing the molecule to be transferred to the lysines of substrate proteins (mono-ubiquitination). Ideal for the reduction in poly-Ub chain length/conjugation rates and determining if poly-Ub chains are K48 linked.
STORAGE	Store at -80°C. Avoid multiple FREEZE/THAW cycles.
QUANTITY	1mg
STATUS	Lyophilization
MW	8.6 kDa
PURITY	>95% by SDS-PAGE
AMINO ACID SEQUENCE	MQIFVKTLTGKTITLEVEPSDTIENVKAKIQDKEGIPPDQQRLIFAGRQLED GRTLSDYNIQKESTLHLVLRLLRGG
USE	The lysine residue utilized for ubiquitin chain formation is functionally important. Lysine-to-arginine ubiquitin mutants are ideal for investigating biological processes involving specific ubiquitin chain linkages. Recombinant Human Ubiquitin K48R cannot generate K48-linked polyubiquitin chains. Reaction conditions will need to be optimized for each specific application. We recommend an initial ubiquitin K48R concentration of 0.2-1 mM.