Active Recombinant Human K29-linked Di-Ubiquitin Protein, Tag Free

Cat. No. Di-Ubiquitin-62H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human K29-linked Di-Ubiquitin Protein without tag was expressed in E. coli
Species	Human
Source	E. coli
Description	K29-linked ubiquitin chains are formed when the C-terminal glycine of one ubiquitin is conjugated to lysine 29 of another, generating homotypic or branched polyubiquitin architectures. They adopt an extended conformation that exposes hydrophobic patches, enabling selective recognition by ubiquitin-binding domains such as those in TRABID. K29 linkages are assembled by E3 ligases including TRIP12, UBE3C, and SMURF1 with specific E2 partners, and can also participate in mixed or branched chains with other linkage types. Functionally, K29-linked ubiquitination regulates proteotoxic stress responses, cell cycle progression, and chromatin-associated processes such as H3K9 methylation turnover. Deubiquitylases such as TRABID selectively recognize and cleave K29 linkages, shaping signaling outputs and maintaining protein homeostasis.
Form	10 mM HEPES, pH 7.6
Bio-activity	Polyubiquitin chains can serve as substrates in in vitro reactions with deubiquitylating enzymes (DUBs) that hydrolyze bonds between adjacent ubiquitin molecules.

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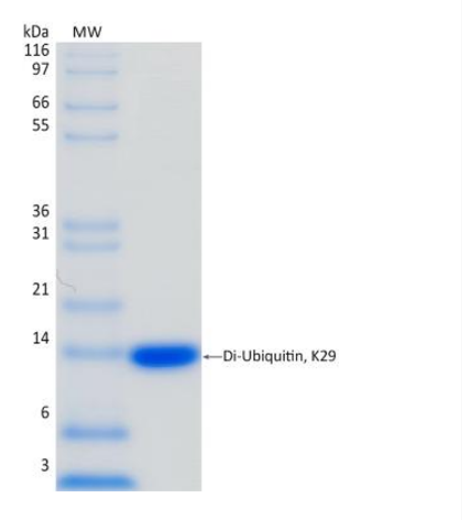
	Furthermore, polyubiquitin chains can be utilized to explore the mechanisms of binding and recognition between these chains and other proteins with UIMs, UBAs, and or other ubiquitin-binding motifs.
Molecular Mass	17 kDa
AASequence	MQIFVKTLTGKTITLEVEPSDTIENVKAKIQDKEGIPPDQQRLIFAGKQLEDGRTLSDY NIQKESTLHLVLRLRGG
Purity	0.95
Applications	Ubiquitin chains exhibit diversity in length, linkage type, and associated cellular functions. K29-linked Di-Ubiquitin serves as a valuable reagent in assays involving ubiquitin-binding proteins and as a substrate for ubiquitin-specific deubiquitylating enzymes (DUBs).
Storage	Frozen Dry Ice
Concentration	58 μM
Reference	1. Yu, Y., et al. (2021) Nat Chem Biol 17:896-905. PMID 34239127 2. Arroyo-Gomez, J., et al. (2025) EMBO J 44:6944-6978. PMID 41125851 3. Kristariyanto, Y.A., et al. (2015) Mol Cell 58(1):83-94. PMID 25752573

GENE INFORMATION

Official Symbol	Di-Ubiquitin
Synonyms	Di-Ubiquitin

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SDS-PAGE



2 μg K29-linked Di-Ubiquitin run on 4-12% SDS PAGE gel under reducing conditions, then visualized with Colloidal Coomassie Blue Stain.

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