

Product Name: Tetra-Ubiquitin Chain Proteins Set

Product Code: TPS-161

Quantity: 7 x 10 µg

FOR RESEARCH USE ONLY (RUO)

Verified Applications / Usage

Ubiquitin chains exhibit diversity in length, linkage type, and associated cellular functions. M1-, K6-, K11-, K29-, K33-, K48-, & K63-linked Tetra-Ubiquitin serve as valuable reagents in assays involving ubiquitin-binding proteins and as a substrate for ubiquitin-specific deubiquitylating enzymes (DUBs).

Physical Characteristics

Species: Human

Predicted MW (kDa): 34 kDa

Source: *E. coli* BL21

Purity: 95 %

Tags: All Untagged

Formulation: 10 mM HEPES, pH 7.6

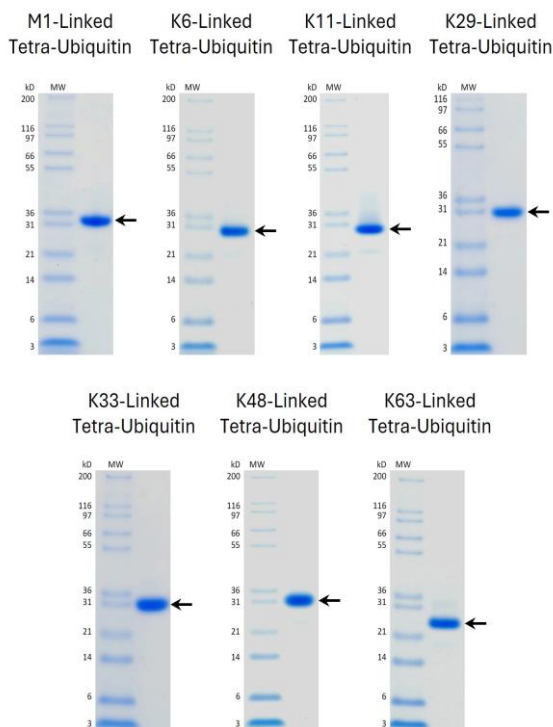
Shipping: The product is shipped with dry ice. Upon receipt, store it immediately at the temperature recommended below.

Stability/Storage: Use a manual defrost freezer and avoid repeated freeze-thaw cycles. Aliquot and store ≤ -70°C (stable for 24 months from date of receipt).

Quality Assurance

Purity & SDS-PAGE

Protein ID: Ubiquitin



2 µg each of M1-, K6-, K11-, K29-, K33-, K48-, & K63-Linked Tetra-Ubiquitin run on 4-12% SDS-PAGE gel under reducing conditions, then visualized with Colloidal Coomassie Blue Stain.

Activity Assay

Polyubiquitin chains can serve as substrates in *in vitro* reactions with deubiquitylating enzymes (DUBs) that hydrolyze bonds between adjacent ubiquitin molecules. 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.

Background

Description

The Tetra-Ubiquitin Chain Proteins Set contains seven linkage-defined tetra-ubiquitin chains (M1, K6, K11, K29, K33, K48, and K63), each supplied as a 10 µg aliquot. This set enables comparative analysis of polyubiquitin recognition, DUB linkage specificity, ubiquitin receptor interactions, and UPS-targeted drug discovery applications.

Associated Products

TUB-045: Met1-linked (Linear) Tetra-Ubiquitin

TUB-047: K6-linked Tetra-Ubiquitin

TUB-049: K11-linked Tetra-Ubiquitin

TUB-053: K29-linked Tetra-Ubiquitin

TUB-055: K33-linked Tetra-Ubiquitin

TUB-057: K48-linked Tetra-Ubiquitin

TUB-059: K63-linked Tetra-Ubiquitin

Protein Sequence

UB1:

MQIFVKTLTGKTITLEVEPSDTIENVKAKIQDKEGIPPDQQRLIFAGKQLEDGRTLSDYNIQK
ESTLHLVLRLRGG

UB2:

MQIFVKTLTGKTITLEVEPSDTIENVKAKIQDKEGIPPDQQRLIFAGKQLEDGRTLSDYNIQK
ESTLHLVLRLRGG

UB3:

MQIFVKTLTGKTITLEVEPSDTIENVKAKIQDKEGIPPDQQRLIFAGKQLEDGRTLSDYNIQK
ESTLHLVLRLRGG

UB4:

MQIFVKTLTGKTITLEVEPSDTIENVKAKIQDKEGIPPDQQRLIFAGKQLEDGRTLSDYNIQK
ESTLHLVLRLRGG