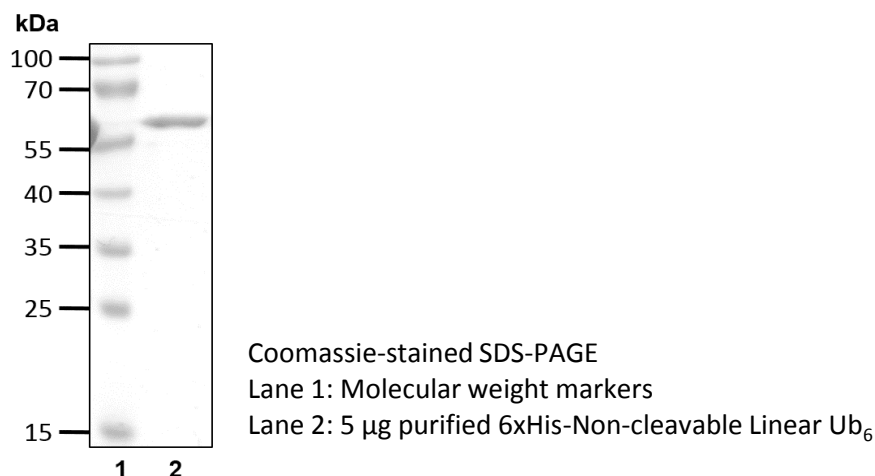


# 6xHis-Non-cleavable Linear Ub<sub>6</sub>

Cat. # D4410

**Species:** Human  
**Source:** Bacterial recombinant  
**Tag:** No  
**Stock Buffer:** 20 mM Tris, 150 mM NaCl, 2 mM βME, 10% Glycerol  
**Concentration:** See tube label  
**Quality Assurance:** > 90% by SDS-PAGE

## Image



## Description:

Ub chains are formed by conjugating the C-terminal glycine residue of Ub onto any of seven internal lysine residues or the amino group of the previous Ub. Ub chains are classified by the lysine residue used to link Ubs; different Ub chain topologies can result in different signals. For instance, Ub chains linked through lysine 6, 11, 27, 29, 33 and 48 are capable of targeting proteins for proteasomal degradation; in contrast, Ub chains linked through lysine 63 or the N-terminal amino group (linear Ub chains) often play important nonproteolytic functions including regulation of kinase activation and protein translation.

6xHis-non-cleavable linear Ub<sub>6</sub> contains a 3XHA tag followed by a TEV cleavage site after the 6xHis tag. The G76V substitution was introduced in the first five Ub moieties and the last Ub has G76. The protein was expressed in *E. coli* and purified by Ni-NTA resin followed by an anion exchange chromatography.

## Storage:

Store at -80°C; avoid multiple freeze-thaw cycles

## Note:

Ub chains, especially K63-linked ones, often form soluble aggregates even storing at -80°C. If necessary, urea powder can be added into the stock solution up to 3 M, then keep the stock solution at room temperature for 30 minutes. This treatment has no effect on Ub chain structure, but breaks soluble Ub chain aggregates.



**Literature:**

1. Hershko A, *et al.* (1980) Proc Natl Acad Sci USA 77(4), 1783 – 1786.
2. Pickart CM, (1997) FASEB 11(13), 1055 – 1066.
3. Hershko A, *et al.* (1998) Ann Rev Biochem 67, 425 – 479.
4. Jiang X, *et al.* (2012) Nature Reviews Immunology 12, 35 – 48.

