Poly-Ub (K48-linked)

Cat No.: P20026

Package: 100μg

Storage: Solubilized solution at –20°C. Avoid multiple freeze/thaw cycles.

Product Description:

Polyubiquitin chains are composed of ubiquitin monomers that are covalently linked through isopeptide bonds, which typically form between a lysine residue of one ubiquitin molecule and the C-terminal glycine residue of another ubiquitin molecule. Each human ubiquitin monomer is 76 amino acids (aa) in length and shares 96% and 100% aa identity with yeast and mouse ubiquitin, respectively. Seven of the 76 aa in ubiquitin are lysine residues that can participate in polyubiquitin chain formation. Linkage through specific lysine residues is thought to serve as a signal that affects protein degradation, signaling, trafficking, and other cellular processes. Linkage specific polyubiquitin chains are used to investigate mechanisms of chain recognition, binding and hydrolysis by the proteasome, deubiquitinating enzymes, E3 ligases or other proteins hat contain ubiquitin-associated domains (UBAs) or ubiquitin-interacting motifs (UIMs). K48-linked chains are abundant in vivo and act as a universal signal for proteasomal degradation. This product is formed with wild-type human recombinant ubiquitin and linkage-specific enzymes. This mixture of polyubiquitin chains contains diubiquitin and higher MW species.

Product Information:

Quantity: 100μg, lyophilized powder

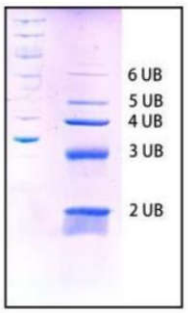
MW: 17 kDa (Ub2) 26 kDa (Ub3), 34 kDa (Ub4), 43 kDa (Ub5), 52 kDa (Ub6)

Solubility: Reconstitute in aqueous buffer at 2mg/mL

Purity: >95%, by SDS-PAGE

Use:

Ubiquitin chains vary in length, linkage, and function. K48-linked polyubiquitin chains (Ub2-6) are ideal for investigating ubiquitin-binding proteins and as substrates for ubiquitin-specific isopeptidases. Reaction conditions will need to be optimized for each specific application.



SDS-PAGE 15%

Note:

Heating this product in SDS-PAGE buffer or terminating reactions containing this product with heated SDS-PAGE buffer could lead to unexpected, high apparent molecular weight banding or smearing on gels that is not representative of product purity. For optimal results, we recommend incubation in SDS-PAGE buffer + DTT at <40 °C for 20 minutes prior to gel electrophoresis.