DUB-resistant, K48-linked Di-ubiquitin (Ub2)

Cat. # SI4812

Background: DUB-resistant, K48-linked Di-ubiquitin (Ub2) contains an amino acid substitution near the C-terminus of the distal ubiquitin that renders it resistant to deubiquitylases (DUBs). DUB-resistant ubiquitin chains are ideal reagents for structural or binding studies with deubiquitylases or other ubiquitin binding proteins. They can also be used as inhibitors or to determine the linkage-specificity of DUBs. The product contains a K48R mutation in the distal ubiquitin and a wild-type C-terminus on the proximal ubiquitin.

Application: Structural or binding studies with deubiquitylases and other ubiquitin binding proteins. Inhibition or determination of linkage-specificity of DUBs

Product Information

Purity: ≥ 90% by RP-HPLC

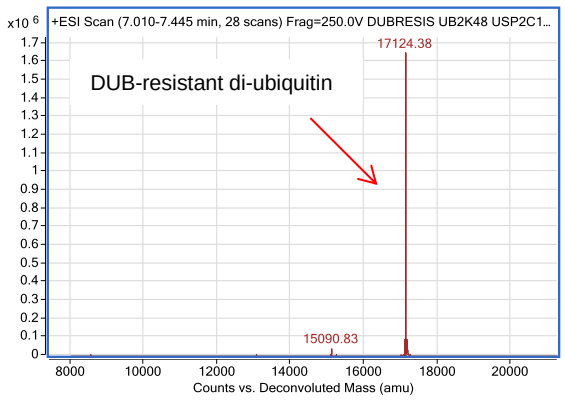
Molecular Weight: 17,123.7 Da (calculated)

Physical State: 1mg/ml in 20 mM Tris pH 7.5, 0.15 M NaCl, 1 mM EDTA

Quantity: 100µg

Storage: -80°C. Avoid repeated freeze/thaw cycles

DUB-resistant, K48-linked Di-ubiquitin is not cleaved by USP2core



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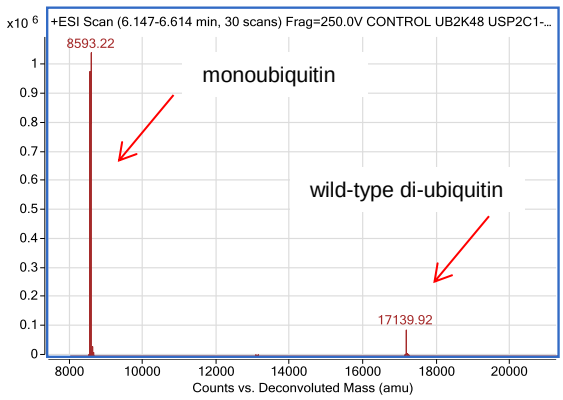

Wild-type di-ubiquitin (Ub2)

LC-MS analyses of DUB-resistant and wild-type di-ubiquitins treated with USP2core. 25µg of DUB-resistant, K48-linked di-ubiquitin (Left panel; MW 17124.4) or 25µg of wild-type di-ubiquitin (Right panel; MW 17139.9) were treated with 0.5µM USP2core for 1 hour at room temperature and then subjected to LC-MS analysis. Neither loss of the di-ubiquitin peak or appearance of monoubiquitin were detected using the DUB-resistant di-ubiquitin whereas almost complete conversion of di-ubiquitin to monoubiquitin is observed with the wild-type di-ubiquitin.