K63 TUBE (FLAG)
Cat. # UM604

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Background

K63-linked polyubiquitin can serve as a marker of autophagy and DNA repair. FLAG® K63 TUBE is an ideal reagent for efficient isolation and enrichment of K63-polyubiquitinated proteins from cell and tissue extracts or in vitro synthesized mixtures. FLAG® K63 TUBE consists of multiple ubiquitin interaction motifs (UIMs) joined by a rigid, helical linker that spaces the UIMs for selective binding to extended K63-linked polyubiquitin chains. The result is a peptide that exhibits high affinity binding to K63-linked polyubiquitin together with 1000 to 10,000-fold selectivity over K48- and K11- linkages. Expression of this peptide in vivo inhibits K63-linked polyubiquitin-dependent processes and protects K63-linked polyubiquitin chains from degradation. Combining this peptide with a FLAG epitope tag generates, for the first time, a powerful affinity reagent suitable for isolation, purification and characterization of proteins modified by K63-linked polyubiquitin. Flag K63-TUBE allows isolation of K63-linked polyubiquitin without the need for overexpression of ubiquitin mutants, tagged-ubiquitin or the inclusion of DUB inhibitors any of which could alter cellular physiology. (FLAG is a registered trademark of Sigma-Aldrich Corporation LLC).

Application(s)

- Isolation and enrichment of K63-linked polyubiquitinated proteins from cell and tissue extracts
- Isolation of ubiquitinated proteins for proteomic studies (e.g., mass spectrometry)
- Far-western blot analysis of K63-ubiquitinated proteins

Product Specifications

Affiity Tag	Flag
Purity	> 95% by RP-HPLC
Molecular Weight	22 kDa
Quantity	50 μg
Expression System	*E.Coli*
Physical State	Liquid
Buffer	PBS, pH 7.2
Concentration	Variable, depending on lot number
Storage	Store at -80° C. Avoid repeated freeze/thaw cycles

Product QC
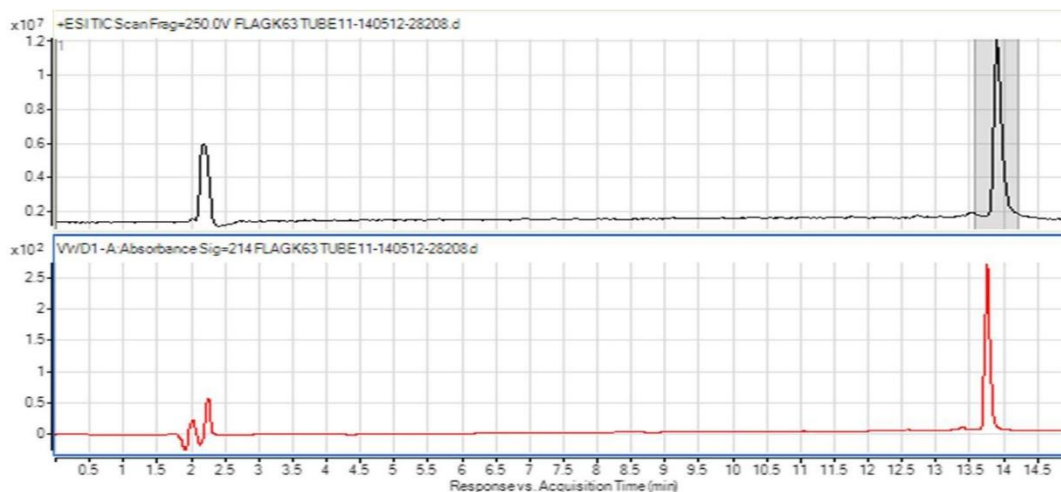
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