K63 TUBE -Alexa Fluor® 647

Cat. # **UM704A**

LifeSensors www.lifesensors.com

Background

LifeSensors has expanded the polyubiquitin technology with the development of TUBE (Tandem Ubiquitin Binding Entity) site-specifically labeled with Alexa Fluor® 647. TUBE K63 -Alexa Fluor® 647 selectively binds K63-linked polyubiquitin chains and provides a sensitive and cost-effective tool for determining the abundance of polyubiquitin in the cell, tissue extracts and *in vitro* ubiquitination/E3 ligase reactions. K63-TUBE exhibits high-affinity binding to K63-linked polyubiquitin together with 1000 to 10,000-fold selectivity over K48- and K11- linkages. The K63 TUBEs allows for detection of K63- linked polyubiquitin without the need for overexpression of ubiquitin mutants, tagged ubiquitin chains TUBEs both stabilize and bind to ubiquitylated proteins, thereby effectively "capturing" proteins in their polyubiquitylated state [1-5].

Applications

- In vitro E3 Ligase and substrate ubiquitination assay (polyubiquitination sensor).
- TR-FRET High Throughput Screening (HTS) assay
- Discovery of PROTAC and Molecular Glues in drug screening.
- Western blotting detection
- Immunohistochemistry staining

Product Specifications

Affinity Tag	His
Purity	> 95% by RP-HPLC and SDS-PAGE
Molecular Weight	~23 kDa
Quantity	25 µg
Expression System	*E. Coli*
Physical State	Liquid
Buffer	Phosphate Buffered Saline (PBS), 5% Glycerol
Concentration	Variable, dependent on lot number
Stability & Storage	Over 1 year at -80℃. Avoid repeated freeze/thaw cycles.

Product QC: TR-FRET Assay Application