K48 TUBE HF-Alexa Fluor® 647

Cat. # **UM707A**

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. K48 TUBE HF -Alexa Fluor® 647 selectively binds K48-linked polyubiquitin chains and provides a sensitive and cost-effective tool for determining the abundance of K48-linked polyubiquitin in the cell, tissue extracts and *in vitro* ubiquitination/E3 ligase reactions. TUBEs have 100 to 1000-fold higher affinity for polyubiquitin chains compared to monomer ubiquitin binding domains (UBDs). K48 TUBE shows enhanced selectivity for K48-linked polyubiquitin chains (~20 nM) over all other linkages (>2 µM). It can be used alone or in conjunction with our other TUBE products, especially K63 TUBE and M1 (linear) TUBE to investigate polyubiquitin chain linkages in your substrate protein. 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	~24 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