

**Background**

LifeSensors has expanded the polyubiquitin technology with the development of TUBE (Tandem Ubiquitin Binding Entity) 1 site-specifically labeled with Alexa Fluor® 647. TUBE 1 -Alexa Fluor® 647 binds polyubiquitin chains with pan selectivity 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. TUBEs have 100 to 1000-fold higher affinity for polyubiquitin chains compared to monomer ubiquitin binding domains (UBDs). 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**

<b>Affinity Tag</b>	His
<b>Purity</b>	≥ 95% by RP-HPLC and SDS-PAGE
<b>Molecular Weight</b>	38,392 Da
<b>Quantity</b>	25 µg
<b>Expression System</b>	<i>E. Coli</i>
<b>Physical State</b>	Liquid
<b>Buffer</b>	Phosphate Buffered Saline (PBS), 5% Glycerol
<b>Concentration</b>	Variable, dependent on lot number
<b>Stability &amp; Storage</b>	Over 1 year at -80°C. Avoid repeated freeze/thaw cycles.

**Product QC: TR-FRET Assay Application**

