

# TANDEM UBIQUITIN BINDING ENTITIES (TUBE<sub>s</sub>)

**LifeSensors**

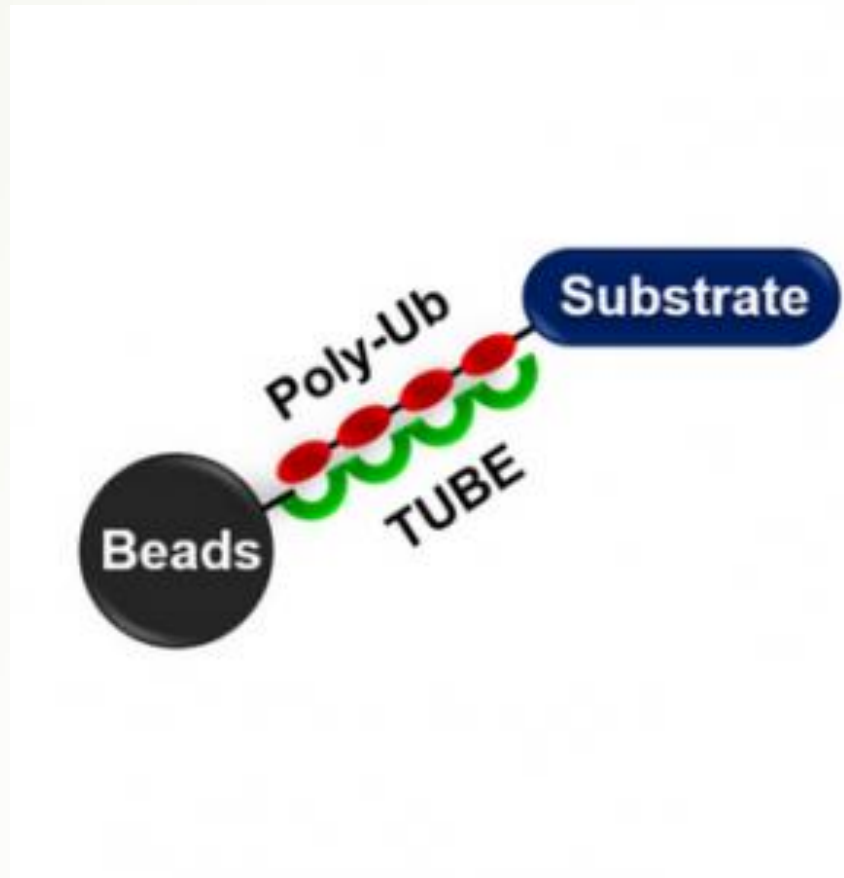
271 Great Valley Parkway

Malvern PA 19355

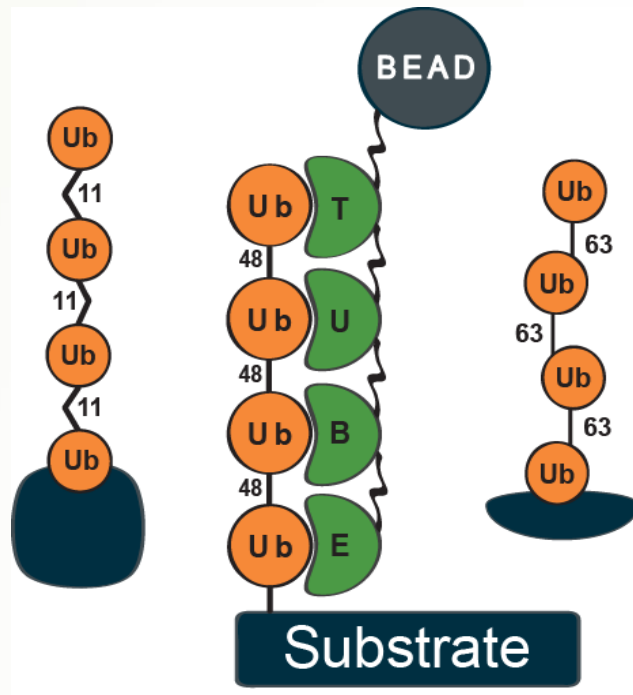
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Nature Developed the Code...  
it Must Have Designed Proteins  
to Read the Code as Well!

**LifeSensors has embarked  
on strategy to isolate and  
engineer all the ubiquitin  
binding domains (UBDs)  
that are highly selective  
for K6, K11, K27, K29, K33,  
K48, and K63**

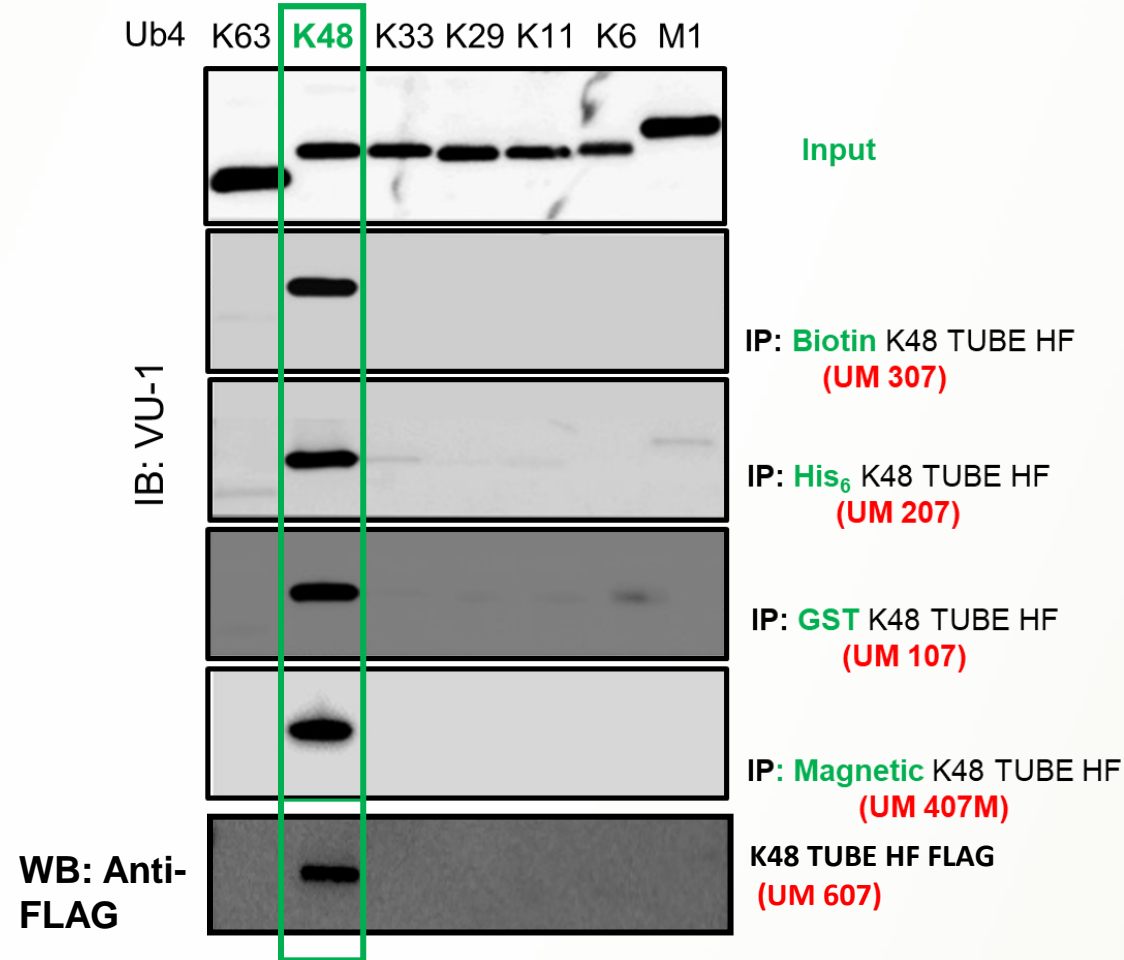


# POWER of TANDEM UBIQUITIN BINDING ENTITIES



- Remarkable tool for monitoring PROTAC function
- HTS of *in vivo* ubiquitylated proteins
- Isolation of ubiquitylated substrates from cell lysates
- Ubiquitin mass spec proteomics bypassing SILAC
- E3 ligase assays using TR-FRET assay
- Superior to antibodies, detection by Western blot
- Imaging tools for *In situ* detection with fluorescence

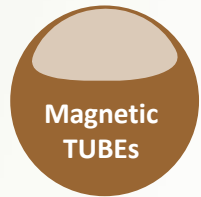
# Enrichment/Detection of polyubiquitinated proteins



K48 TUBE HF FLAG detects only K48-linked ubiquitin chains in Western Blots

# TUBE Applications

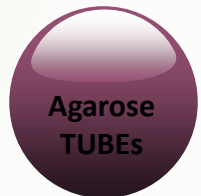
## Pull-down of polyubiquitylated proteins



Magnetic TUBEs



GST TUBEs



Agarose TUBEs

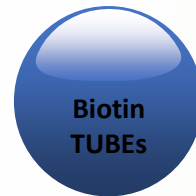


His6 TUBEs

## Biomarkers

- In Vivo Drug Validation
- DUB Screening
- E3 Screening and Profiling

## 'Far Western' blot



Biotin TUBEs

## Mass Spectroscopy/ Proteomics

- TUBE Based M/S
- UbiSight Proteomics
- Microarrays for Ubiquitomics



TAMRA-TUBEs



Fluorescein TUBEs