Parkin R275W Mutant (His_{10}-SUMO)

Cat. # UB320

Background: Encoded by the PARK2 gene, the E3 ligase Parkin is part of the multi-protein E3 complex that encodes substrate proteins for degradation in the Ubiquitin-Proteasome Pathway[1]. The precise function of this protein is unknown; however, mutations in this gene are known to cause a familial form of Parkinson's disease known as autosomal recessive juvenile Parkinson's disease (AR-JP). Parkin is described to be necessary for mitophagy (autophagy of mitochondria). The R275W mutation has been shown to destabilize Parkin and disrupt interaction with the helix that mediates pUb binding[2].

Application: For use in investigating and research of the Parkin and PINK1 pathway and/or drug discovery.

Product Information

Purity:	≥ 95% by SDS-PAGE
Molecular Weight:	64 kDa
Quantity:	25 µg
Physical State:	Liquid, 50 mM Tris, pH 7.5, 0.15 M NaCl, 10% Glycerol
Species:	Human
Source:	*E. coli*
Storage:	-80° C. Avoid repeated freeze/thaw cycles

References

1. Wang, X.-L. *et al.* Parkin, an E3 Ubiquitin Ligase, Plays an Essential Role in Mitochondrial Quality Control in Parkinson's Disease. *Cell Mol Neurobiol* **41**, 1395–1411 (2021).
2. Yi, W. *et al.* The landscape of Parkin variants reveals pathogenic mechanisms and therapeutic targets in Parkinson's disease. *Hum Mol Genet* **28**, 2811–2825 (2019).