

Hrd1 (Synoviolin)

Cat. # UB307

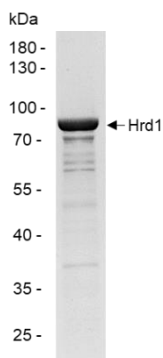
Background

Hrd1 is a RING domain E3 ligase that is involved in the conjugation of ubiquitin to target substrates. Hrd1 has been demonstrated to function with the E2 enzymes UBE2D3 (UbcH5c) and UBE2G2 in vitro. Hrd1 is an ER-associated ligase involved in ERAD and has been linked to rheumatoid arthritis. It is present in human rheumatoid synovial cells and found to be a causative factor for arthropathy in in vivo studies. Hrd1 is also found in brain neurons and its proper regulation may be linked to neurodegenerative diseases. This construct is a Hrd1 N-terminal deletion containing residues 236-617 consisting of the complete C-terminal cytoplasmic portion. The N-terminal transmembrane spanning portion has been deleted. This Hrd1 N-terminal deletion mutant is active as an E3 ligase containing the RING and substrate recognition domains.

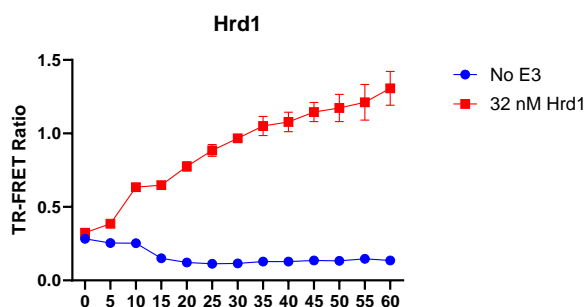
Product Information

Purity	≥ 80% by SDS-PAGE
Molecular Weight	Cytoplasmic fragment (236-617): 49.3 kDa (tagged with His ₆ -SUMO)
Quantity	25 µg
Physical State	Liquid
Species	Human
Source	<i>E. coli</i>
Tag	His6-SUMO
Activity	Typical enzyme concentration 20nM -1 µM is used for in vitro conjugation depending on assay conditions
Storage	-80° C. Avoid repeated freeze/thaw cycles

Product QC



SDS-Page Analysis of purified Hrd1. Two µg of the protein was loaded on a 10-20% SDS-PAGE gel and stained with Coomassie brilliant blue.



Activity Assay of Hrd1. 32 nM Hrd1 was tested in a TR-FRET assay showing robust E3 ligase activity.

References

1. Li, K., et al., *Metabolism*, 2021. 114:154349.
2. Wu, X., et al., *Science*, 2020. 368(6489):eaaz2449.

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