Praja1 (E3 ubiquitin protein ligase Praja1)
Cat. # UB303

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Background	Praja1 (along with its homolog Praja2, which shares 53% identity) is a RING-H2 domain E3 ubiquitin protein ligase involved in the conjugation of ubiquitin to target substrates, in collaboration with E1 and E2 enzymes. Substrates for Praja1 include Dlxin-1 (also known as MAGE-D1 in humans), which regulates Dlx5-dependent transcriptional functions involved in osteoblast differentiation, as well as ELF and Smad3, which play roles in the TGF-β signaling pathway implicated in gastrointestinal cancers.
Alternate Names	Praja Ring Finger Ubiquitin Ligase 1, RING Finger Protein 70 (RNF70), Praja Ring Finger 1, Praja Ring Finger 1 E3 Ubiquitin Protein Ligase, RING-Type E3 Ubiquitin Transferase Praja-1
Application(s)	In vitro conjugation assay

Product Specifications

Affinity tag	His6-SUMO
Purity	> 90% by SDS-PAGE
Molecular Weight	71 kDa (without Tag), ~ 110 kDa with tags
Quantity	25 µg
Species	Human
Expression System	*E. coli*
Physical State	Liquid
Buffer	50 mM Tris, 150 mM NaCl, 10 mM DTT, 10% glycerol
Activity	Typical enzyme concentration of 2-100 nM for in vitro conjugation, condition-dependent.
Storage	Store at -80°C. Avoid repeated freeze/thaw cycles

Product QC
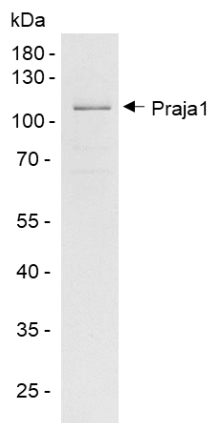
SDS-Page Analysis of purified Praja1. Two µg of the protein was loaded on a 10-20% SDS-PAGE gel and stained with Coomassie brilliant blue.
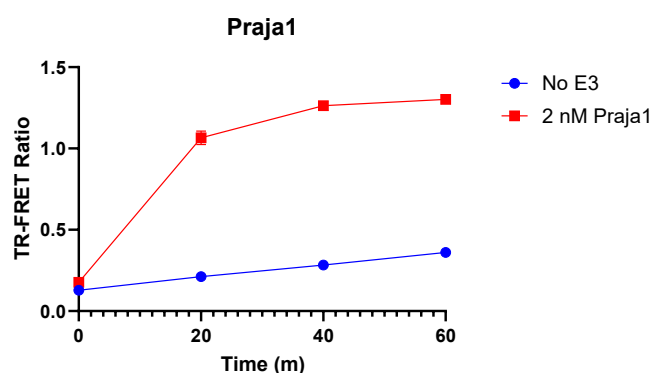
Activity Assay of Praja1. 2 nM Praja1 was tested in a TR-FRET assay showing robust E3 ligase activity.

References

1. Consalvi, S., et al., Nat Commun., 2017. 8:13956.
2. Watabe, K., et al., Neuropathology, 2022. 42(6):488-504.