
Supplementary information

K29-linked ubiquitin signaling regulates proteotoxic stress response and cell cycle

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K29-Linked Ubiquitin Signaling Regulates Proteotoxic Stress Response and Cell Cycle

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Supplementary TABLES

Supplementary Table 1: X-ray data collection and refinement statistics.

Data collection	
Space group	C2
Cell dimensions	
<i>a</i> , <i>b</i> , <i>c</i> (Å)	186.6, 43.74, 174.8
α , β , γ (°)	90, 107.8, 90
Resolution (Å)	2.9 (2.98-2.90) *
<i>R</i> _{sym} or <i>R</i> _{merge}	0.162 (0.977)
<i>CC</i> _{1/2} (%)	99.1 (57.0)
<i>I</i> / σ <i>I</i>	6.72 (1.46)
Completeness (%)	98.1 (98.2)
Redundancy	3.7 (3.7)
Refinement	
Resolution (Å)	19.7 – 2.9
No. reflections	30022
<i>R</i> _{work} / <i>R</i> _{free}	23.6 / 28.2
No. atoms	
Protein	8846
Ligand/ion	30
Water	13
<i>B</i> -factors	
Protein	62.4
Ligand/ion	71.8
Water	48.4
R.m.s. deviations	
Bond lengths (Å)	0.002
Bond angles (°)	0.461

*Values in parentheses are for highest-resolution shell.

Supplementary Table 2: List of K29-linked substrates and co-purified components.

K29-linked substrates and co-purified components identified from HeLa cell lysate using pull down and mass spectrometry. Proteins with GG-modified peptides are listed separately.

Supplementary VIDEOS

Supplementary Video 1: 3D STORM visualization (rotation by a shorter axis) of

K29-linked ubiquitin in the midbody of dividing HeLa cells.

Rendering was conducted by Visual Molecular Dynamics (VMD) with GLSL rendering, Orthographic display, and Surf drawing.

Supplementary Video 2: 3D STORM visualization (rotation by a longer axis) of

K29-linked ubiquitin in the midbody of dividing HeLa cells.

Rendering was conducted by Visual Molecular Dynamics (VMD) with GLSL rendering, Orthographic display, and Surf drawing.