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## MATERIAL DATA SHEET

**Biotin-Rap80 UIM, human recombinant**

**Cat. # UBE-235**

Rap80 (Receptor Associated Protein 80) interacts with BRCA1, a ubiquitin E3-ligase which functions in conjugation with the BARD1 deubiquitinating enzyme. BRCA1 is recruited to DNA damage sites by poly-ubiquitin chains through Rap80 which contains 2 tandem ubiquitin-interacting motifs (UIMs). Rap80 constitutes a protein complex with ABRA1 which interacts with the BRCT domain of BRCA1. Upon DNA damage the Rap80-ABRA1 complex targets the BRCA1-BARD1 complex to K6- and K63-linked poly-Ub chains at these foci. The UIM domains of Rap80 have been shown to have preferential binding to K-6 and K63-linked Ub chains and binds to K48-chain with a much lower efficiency. It is not known if Rap80 UIMs interact with Ub chains linked via K11, K27 or K33. Rap80 has a low affinity for mono-, di- and tri-Ub but binds efficiently to tetra (or greater) ubiquitin chains. Detection with avidin-linked reagents allows for a higher efficiency and detection sensitivity than with other antibodies.

### Product Information

<b>Quantity:</b>	250 µg
<b>MW:</b>	8.5 kDa
<b>Stock:</b>	X mg/ml (X µM) 50 mM Hepes, 250 mM NaCl, 1 mM DTT pH 8.0
<b>Purity:</b>	>95% by SDS-PAGE

### Use & Storage

<b>Use:</b>	Use 50-100 µg of protein to detect 10-20 µg of purified K63-linked ubiquitin chains. The amount necessary for use in crude lysates must be empirically determined.
<b>Storage:</b>	Store at -80°C. Avoid multiple freeze/thaw cycles.

### Literature

<b>References:</b>	Buchberger A. (2002) <i>Tren. Cell. Biol.</i> <b>12</b> :216-221
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	Kim H., <i>et al.</i> (2008) <i>Mol. Cells.</i> <b>25</b> :457-61
	Sobhian B., <i>et al.</i> (2007) <i>Science.</i> <b>316</b> :1198-1202
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