

## MATERIAL DATA SHEET

### Recombinant Human RAP80 UIM Domains Biotin

#### 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>Source:</b>	<i>E. coli</i> -derived Accession # NP_057374
<b>Stock:</b>	Supplied as a solution in HEPES, NaCl, DTT and Glycerol.
<b>Purity:</b>	>95%, by SDS-PAGE under reducing conditions and visualized by silver stain.

#### Use & Storage

<b>Use:</b>	Biotin-Rap80 UIM can be used for the purification and identification of non-K48-linked Ubiquitin chains. Reaction conditions will need to be optimized for each specific application. We recommend using 50-100 µg of Biotin-Rap80 UIM to detect 10-20 µg of purified Ubiquitin chains.
<b>Storage:</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>• 12 months from date of receipt, -70 °C as supplied.</li> <li>• 3 months, -70 °C under sterile conditions after opening.</li> </ul>

## Literature

### References:

1. Buchberger A. (2002) Trends Cell. Biol. **12** :216-221
2. Hurley J. H. *et al.* (2006) Biochem. J. **399** :361-372
3. Kim H. *et al.* (2007) Science **316**:1202-1205
4. Kim H. *et al.* (2008) Mol. Cell. **25**:457-61
5. Sobhian B. *et al.* (2007) Science **316**:1198-1202
6. Wang B. (2007) Science **316**:1194-1198
7. Wu W. *et al.* (2008) Cell Div. **31-10**
8. Yan J. *et al.* (2007) Canc. Res. **15**:6647-6656

*For research use only. Not for use in humans.*