

MATERIAL DATA SHEET

RAP80 UIM Domains Agarose, *human recombinant* Cat. # AM-120

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. This affinity resin can be used for the enrichment, isolation and identification of ubiquitinated proteins that are non-K48-linked.

Product Information

Quantity:	0.25 ml
Stock:	0.25 ml RAP80 UIM domains agarose is supplied in a 0.5 ml total volume of 50 mM Hepes pH 7.5, 250 mM NaCl, 1 mM NaN ₃ .

Use & Storage

Use:	Equilibrate resin by washing with 5-10 ml desired start buffer. Binding and elution of material is dependent on individual experimental conditions.
Storage:	The agarose can be re-used for at least 2 applications if properly maintained. After use, clean resin with 5 ml 50 mM Tris pH 9.0, 1 M KCl. Remove cleaning solution by washing resin with 5 ml storage buffer. Resin should be stored at 4°C, 0.01% sodium azide can be added as a bacteriostatic agent. DO NOT FREEZE.

Literature

References:	Buchberger A. (2002) <i>Tren. Cell. Biol.</i> 12 :216-221 Hurley J.H., <i>et al.</i> (2006) <i>Biochem. J.</i> 399 :361-372 Kim H., <i>et al.</i> (2007) <i>Science.</i> 316 :1202-1205 Kim H., <i>et al.</i> (2008) <i>Mol. Cells.</i> 25 :457-61 Sobhian B., <i>et al.</i> (2007) <i>Science.</i> 316 :1198-1202 Wang B., (2007) <i>Science.</i> 316 :1194-1198 Wu W., <i>et al.</i> (2008) <i>Cell. Div.</i> 31 -10 Yan J., <i>et al.</i> (2007) <i>Canc. Res.</i> 15 :6647-6656
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