BRCA2, purified, reveals some of its secrets

Working independently, three research teams have purified extracts of human BRCA2 protein, encoded by a tumor suppressor gene that, when mutated, sharply elevates risks for breast and ovarian cancer. The achievement lends new insights into BRCA2 functioning and could lead to new cancer treatments, according to Gordon Mills, M.D., Ph.D., chair of molecular oncology at the M. D. Anderson Cancer Center in Houston. Stephen C. Kowalczykowski, Ph.D., a biochemist at the University of California, Davis, who led the team that published in Nature, said that hitting on the right combination of tags and expression systems took considerable trial and error. Neither bacterial nor insect cell lines possessed the protein mix that human BRCA2 relies on to fold correctly as it emerges from the genome, he said.

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