

Case 2

Epithelial ovarian cancer

Critical interval: 5p25-p23



C FANCD2, best scoring candidate

2 BRCA1, involved in EOC

3 BRCA2, involved in EOC

5 NBN, involved chromosomal instability disorders

Label	Protein description, HUGO identifier
C	Fanconi anemia group D2 protein, FANCD2
1	Ubiquitin carboxyl terminal hydrolase 1, USP1
2	Breast cancer type 1 susceptibility protein, BRCA1
3	Breast cancer type 2 susceptibility protein, BRCA2
4	Tumor suppressor p53-binding protein 1, TP53BP1
5	Nibrin isoform 1, NBN
6	GTP-binding protein, RIT1
7	Fanconi anemia group E protein, FANCE

Similar

Identical



Computational annotation of pairwise phenotypic similarity of proteins in the candidate complexes and the patient phenotypes

Supplementary Figure 4 EOC candidate complex. A candidate complex pulled-down with one of 200 candidates lying in an interval on 3p25-p22 where linkage has been shown in families suffering from epithelial ovarian cancer. The candidate (C) is known to be involved in the BRCA pathway, and interacts with a number of proteins known to be involved in ovarian cancer and/or DNA repair and chromosomal instability disorders. The computational phenotype association scheme recognizes that BRCA1, and BRCA 2 are involved in an identical phenotype, and that NBN, is involved in a similar phenotype. Based on this the Bayesian predictor awards the candidate a score of 0.4402. In the benchmarking set approximately 1 out of 3 candidates with this score is actually the protein involved in the patient phenotype.