SUPPLEMENTARY MATERIAL

A N-terminal end

```
AtBRCA1    1  MADTSHLE---------RMGRELKCPICLSLYNSAVSLSCNHVFCNACIVKSMKMDATCPVCKIPYHRR  60
hBRCA1     1  M-DLSALRVEEVQNVINAMQKILECPICLELIKEPVSTKCDHIFCKFCMLKLLNQK------KGP-SQ   60
```

B C-terminal end

```
AtBRCA1  730  KKLVLSCSGLTVEEKTVIAEFAPLSGPTISKNWDSTVTHVIAPINENGACKRTLKFMMAI
hBRCA1   1647 KRMSMVVSGLTPEEFMLVYKFARKHHITLTNLITEETTHVVMKTDAEFVCERTLKYFLGI

AtBRCA1 LEGKWILTIDWIKACMKNTKYVSEEPYEITMDVHGIR--EGPYLGRQRALKKKPKLFTGL
hBRCA1  AGGKWVVSYFWVTQSIKERKMLNEHDFEVRGDVVNGRNHQGPKRARE---SQDRKIFRGL

AtBRCA1 KFYIMGDFELAYKGYLQDLIVAAGGTILRRRPVSSDDNEASTIVVFSVEPSKKKTLTQRR
hBRCA1  EICCYGPFTNMPTDQLEWMVQLCGASVVKELSSFTLGTGVHPIVV--VQPDAWT----ED

AtBRCA1 SDAEALAKSARARAASSSWVLDSIA--GCQIL--VLI          941
hBRCA1  NGFHAIGQMCEAPVVTREWVLDSVALYQCQELDTYLIPQIPHSHY  1863
```

C Consensus sequence of RING finger domain (smart00184)

```
AtBRCA1:   16   CPICLSLY-NSAVSLSCNHVFCNACIVKSMKMDA--TCPVC  53
Domain:    1    CPICLEEYLKDPVVLPCGHTFCRSCIRKWLESSNSNTCPIC  41
```

D Consensus sequence of BRCA1 C-Terminus (BRCT) domain (pfam00533).

```
AtBRCA1:  729  FSKKLVLSCSGLTVEEKTVIAEFAELSGVTISKNWDSTVTHVIASINENGACKRTLKFMM  788
Domain:   6    FSGLTFVLTGSLDSEERDELKELIEKLGGKVTSSVSKKTTHVIVGENAGSKLEKALIA--  63

AtBRCA1:  789  AILEGKWILTIDWIKACMKNTKYVSEEPYEI  819
Domain: 64     ---LGIPIVTEEWLLDCIKKGKLLPEDDYLL  91

AtBRCA1:  840  KKPKLFTGLKFYIMGDFELAYKGYLQDLIVAAGGTILRRRPVSSDDNEASTIVVFSVEPS  899
Domain:   1    PSEKLFSGLTFVLTGSLDSEERDELKELIEKLGGK------VTSSVSKKTTHVIVGENAG  54

AtBRCA1:  900  KKKTLTQRRSDAEALAKSARARAASSSWVLDSIAGCQIL  938
Domain:   55   SKLEKALIA---------LGIPIVTEEWLLDCIKKGKLL  84
```

Figure S1. Analysis of AtBRCA1 protein domains. Alignment using Alignp of AtBRCA1 with (A) N-terminal region, (B) C-terminal region of hBRCA1 and (C) RING and (D) BRCT consensus domain sequences. Identical amino acids are boxed in black and similar amino acids in grey.