53BP1-RIF1-shieldin counteracts DSB resection through CST- and Polα-dependent fill-in

Article  (Supplemental Material)


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Ext. Data Fig. 5. Mirman, Lottersberger et al.

(a) [Image of a diagram showing protein expression levels with various proteins marked.

(b) [Image of a gel-like diagram with different conditions and proteins.

Legend:
- **GBD**
  - Shld1
  - Shld2
  - Shld3
  - Rev7

- **GAD**
  - Ctc1
  - Stn1
  - Ten1

- **Conditions**
  - -trp-leu
  - -trp-leu-ade
  - -trp-leu-his
  - 1 mM 3AT
  - 8 mM 3AT

**Mouse Proteins:**
- POT1a
- POT1b
Ext. Data Fig. 6. Mirman, Lottersberger et al.

(a) 

(b) 

U2OS-FOKI cells

no arrest  
RO-3306

IF Polγ

S phase  
G2 phase

(c) 

(d) 

% HA cells w/ FOK1/Polγ co-loc

no HA-Stn1  
HA-Stn1  
HA-Stn1+ sgShld2

mCherry-FOKI  
Polγ  
HA-Stn1  
merge Polγ-FOKI

% HA cells w/ FOK1/Polγ co-loc

sg ctrl  
ctrl  
53BP1  
Shld2

+ATM/ATRI
Ext. Data Fig. 7. Mirman, Lottersberger et al.

Myc-RPA2 signal intensity/nucleus (AU)

<table>
<thead>
<tr>
<th>Condition</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>vec no IR</td>
<td>14,088</td>
</tr>
<tr>
<td>vec 10 Gy 6 h</td>
<td>16,693</td>
</tr>
<tr>
<td>Stn1sh2 no IR</td>
<td>18,170</td>
</tr>
<tr>
<td>Stn1sh2 10 Gy 6 h</td>
<td>22,896</td>
</tr>
</tbody>
</table>
Ext. Data Fig. 8. Mirman, Lottersberger et al.

**a** BRCA1^{FF} parental
- Cre - + + +
- shRNA ctrl ctrl Stn1 Ctc1
- BRCA1 γtub

**b** BRCA1^{FF} parental
- Cre - + + +
- shRNA ctrl ctrl Stn1 Ctc1
- Stn1 γtub

**c** BRCA1^{FF} no gRNA
- Cre + + + +
- shRNA ctrl ctrl Stn1 Ctc1
- BRCA1 γtub

**d** BRCA1^{FF} no gRNA
- Cre + + + +
- shRNA ctrl ctrl Stn1 Ctc1
- Stn1 γtub

**e** BRCA1^{FF} 53BP1^[+]
- Cre + + + +
- shRNA ctrl ctrl Stn1 Ctc1
- 53BP1 γtub

**f** BRCA1^{FF} Rev7^[+]
- Cre + + + +
- shRNA ctrl ctrl Stn1 Ctc1
- Rev7 γtub

**g** BRCA1^[+/-] no Cre
- shRNA ctrl Stn1 Ctc1
- BRCA1 γtub

**h** BRCA1^[+/-] w/ or w/o Stn1/Ctc1 shRNA
- PARP1 inhibitor + BrdU
- 0 h, 12 h, 21 h, 25 h, 28 h
- Colcemid
- Harvest metaphases
- Stain for BrdU

**i** DAPI IF BrdU
- BrdU

**j** % BrdU^+ metaphases
- BrdU DMSO Apo OD37