Fig. 2B

[Image of Western blots for various proteins labeled ATR, p-ATR, ATM, p-ATM (light exposure), p-ATM (long exposure), Chk2, p-Chk2, γ-H2A.X, RAD50, NBS1, and β-actin for HeLa and HCT116 cell lines under Dox and Vector conditions.]

- ATR: 170kd
- p-ATR: 170kd
- ATM: 170kd
- p-ATM (light exposure): 170kd
- p-ATM (long exposure): 170kd
- Chk2: 55kd
- p-Chk2: 55kd
- γ-H2A.X: 15kd
- RAD50: 130kd
- NBS1: 100kd
- β-actin: 40kd
Fig. 2C

si-RNA

|            | Cil. | Cil | HITT #1 | HITT #2 |
|------------|------|-----|---------|---------|
| ATR        |      |     |         |         |
| p-ATR      |      |     |         |         |
| ATM        |      |     |         |         |
| p-ATM (light exposure) |      |     |         |         |
| p-ATM (long exposure) |      |     |         |         |
| Chk2       |      |     |         |         |
| p-Chk2     |      |     |         |         |
| γ-H2A.X    |      |     |         |         |
| RAD50      |      |     |         |         |
| NBS1       |      |     |         |         |
| β-actin    |      |     |         |         |

Dox

|            | Cil. | Cil | HITT #1 | HITT #2 |
|------------|------|-----|---------|---------|
| ATR        |      |     |         |         |
| p-ATR      |      |     |         |         |
| ATM        |      |     |         |         |
| p-ATM (light exposure) |      |     |         |         |
| p-ATM (long exposure) |      |     |         |         |
| Chk2       |      |     |         |         |
| p-Chk2     |      |     |         |         |
| γ-H2A.X    |      |     |         |         |
| RAD50      |      |     |         |         |
| NBS1       |      |     |         |         |
| β-actin    |      |     |         |         |

HeLa

HCT116
Fig. 2D

| Dox (min) | Vect. | HITT |
|-----------|-------|------|
| 0         | 5     | 0    |
| 10        | 10    | 10   |
| 30        | 30    | 30   |
| 120       | 120   | 120  |
| 360       | 360   | 360  |

- ATM [170kd]
- p-ATM [170kd]
- α-tubulin [55kd]
Fig. 3A
Figure 3C

- ATM: +Dox, Vect, IgG, NBS1
- p-ATM: +Dox, Vect, HITT
- Mre11: +Dox, Vect, HITT
- RAD50: +Dox, Vect, HITT
- NBS1: +Dox, Vect, HITT
- β-actin: Input

Molecular weights: ATM, 170kd; p-ATM, 170kd; Mre11, 100kd; RAD50, 170kd; NBS1, 100kd; β-actin, 55kd
Figure 3D

ATM
- 170kd

Mre11
- 100kd

RAD50
- 170kd

NBS1
- 100kd

Streptavidin
- HRP
Figure 3K

|        | Input | pulldown |
|--------|-------|----------|
| antisense | +     | +        |
| sense   | +     | +        |

Flag-ATM-MT3 ~ 100kd

Streptavidin HRP
**Figure 3L**

| IP: IgG | IP: Flag | Input |
|---------|----------|-------|
| Vect.   | Vect.    | Vect. |
| HTT     | HTT      | HTT   |
| MT4     | MT2      | MT3   |
| NBS1    |          | NBS1  |
|         |          |       |
| MT2-Flag|          | MT2-Flag|
|         |          |       |
| MT3-Flag|          | MT3-Flag|
|         |          |       |
| MT4-Flag|          | MT4-Flag|

- 100kd
- 130kd
- 100kd
- 55kd
Figure 4B
Figure 4C

|       | si-Ctrl | si-EGR#1 | si-EGR#2 |
|-------|---------|-----------|-----------|
| Dox   |         |           |           |

**EGR1**
- 55kd

**β-actin**
- 55kd
Figure 4D

Vect. EGR1

EGR1 – 55kd

GAPDH – 35kd
Figure 4F

|                | DMSO | Dox |
|----------------|------|-----|
|                | Vect. | HITT |
|                | Ctrl. | Ctrl. | si-EGR1#1 | si-EGR1#2 |
| ATM            | - 170kd |
| p-ATM          | - 170kd |
| Chk2           | - 55kd |
| p-Chk2         | - 55kd |
| EGR1           | - 55kd |
| β-actin        | - 55kd |

HeLa

|                | DMSO | Dox |
|----------------|------|-----|
|                | Vect. | HITT |
|                | Ctrl. | Ctrl. | si-EGR1#1 | si-EGR1#2 |
| ATM            | - 170kd |
| p-ATM          | - 170kd |
| Chk2           | - 55kd |
| p-Chk2         | - 55kd |
| EGR1           | - 55kd |
| β-actin        | - 55kd |

HCT116
Figure 6F

|       | Vect. |       | HITT |       |
|-------|-------|-------|------|-------|
| +     | -     | +     | -    | +     |
| -     | +     | -     | +    | -     |
| -     | -     | +     | +    | -     |

- DMSO
- Dox
- ATMII-1

ATM

- 170kd

p-ATM

- 170kd

Chk2

- 55kd

p-Chk2

- 55kd

RAD50

- 170kd

NBS1

- 100kd

β-actin

- 55kd
Figure S1F

si-Ctl. si-RAD51
RAD51 - 35kd

si-Ctl. si-XRCC4
XRCC4 - 55kd

α-tubulin - 55kd

α-tubulin - 55kd
Figure S2C

Dox

ATMi-1

Vect.  Vect.  HTT  Vect.  HTT

p-ATM

ATM

β-actin

170kd

55kd
Figure S2D

|          | vector | HITT#4 | HITT#1 | HITT#5 |
|----------|--------|--------|--------|--------|
| ATM      |        |        |        |        |
| p-ATM    |        |        |        |        |
| Chk2     |        |        |        |        |
| p-Chk2   |        |        |        |        |
| β-actin  |        |        |        |        |

- 170kd
- 55kd
Figure S2E

| Treatment   | ATM  | p-ATM | Chk2 | p-Chk2 | β-actin |
|-------------|------|-------|------|--------|---------|
| vector      | ![ATM band](-170kd) | ![p-ATM band](-170kd) | ![Chk2 band](-55kd) | ![p-Chk2 band](-55kd) | ![β-actin band](-55kd) |
| CRISPR-cas9#1 |     |       |      |        |         |
| CRISPR-cas9#2 |     |       |      |        |         |

Sample with +Dox

[Image of protein bands and molecular weights]
Figure S2F

| siRNA       | +Dox    |                  |                  |
|-------------|---------|------------------|------------------|
|  Ctrl. Ctl. | ATM     | p-ATM            | p-Chk2           |
| HITT HITT   |         |                  |                  |

- ATM: 170kd
- p-ATM: 170kd
- Chk2: 55kd
- p-Chk2: 55kd

HeLa

HCT116
Figure S3B

H1299

SW620
Figure S3C

Bleo

|        | Vect. | Vect. | HITT |
|--------|------|------|------|
| ATM    |      |      |      |
| p-ATM  |      |      |      |
| Chk2   |      |      |      |
| p-Chk2 |      |      |      |
| β-actin|      |      |      |

ATM

- 170kd

p-ATM

- 170kd

Chk2

- 55kd

p-Chk2

- 55kd

β-actin

- 40kd
Figure S3D

- ATM: 170kDa
- P-ATM: 170kDa
- Chk2: 55kDa
- p-Chk2: 55kDa
- β-actin: 40kDa
Figure S3E
Figure S4C

- **RAD50**: Vect. - 170kd, HITT#1 - HITT#2
- **NBS1**: Vect. - 100kd, HITT#1 - HITT#2
- **ATM**: Vect. - 170kd, HITT#1 - HITT#2
- **ATR**: Vect. - 170kd, HITT#1 - HITT#2
- **Histone3.1**: Vect. - 15kd, HITT#1 - HITT#2

Chromatin-fraction
Figure S5C

|       | HeLa | HCT116 | SW620 |
|-------|------|--------|-------|
| Dox  | -    | +      | -     |
|       | +    | -      | +     |
|       | 0.5  | 1      |       |

**TAF1**
- 55kd

**GAPDH**
- 35kd

---

|       | HeLa | HCT116 |
|-------|------|--------|
| BLeo | -    | +      |

**TAF1**
- 55kd

**GAPDH**
- 35kd
Figure S5D

HCT116

HeLa
Figure S5E

HCT116

HeLa
Figure S5F

|       | s-c.tl | s-c.tl | s-EGR1#1 | s-EGR1#2 |
|-------|--------|--------|-----------|-----------|
|        |        |        | EGR1      | 55kd      |
|        |        |        | β-actin   | 40kd      |
Figure S6B

|   | No.1       | No.2       | No.3       |
|---|------------|------------|------------|
|   | p-ATR N T  | p-ATR N T  | p-ATR N T  |
|   | ATR 170kd  | ATR 170kd  | ATR 170kd  |
|   | p-ATM 170kd| p-ATM 170kd| p-ATM 170kd|
|   | ATM 170kd  | ATM 170kd  | ATM 170kd  |
|   | NBS1 100kd | NBS1 100kd | NBS1 100kd |
|   | β-actin 40kd| β-actin 40kd| β-actin 40kd|