Figure S1. Genetically identical, matched human B lymphoma cells, TK6 (p53 WT) and NH32 (p53 mutant), were seeded at 3 × 10^5 cells and cell number was counted by trypan blue exclusion at days 2 and 4. Cells were treated with vehicle control or 20μM NSC23766, and drug was replenished on day 2. Data represents three independent experiments.

Figure S2. Genetically identical, matched human B lymphoma cells, TK6 (p53 WT) and NH32 (p53 mutant), were transduced with either a YFP-tagged shRac1 construct or scrambled sh control (shSCR). YFP-positive cells were analyzed 48 hours post-infection by flow cytometry to determine the Annexin V/7AAD positive population following Rac1 knockdown.

Figure S3. J3D cells containing the p53 ts mutant were treated with the Rac1 inhibitor, NSC23766, or transduced with a Rac1N17 mutant and immunoblotted for phospho-PAK1 and phospho-Akt, (left panel) and potential effectors of the MAP kinase module, i.e. ERK, JNK, p38 (right panel) and their respective total protein levels. The left and right panels were from the same membrane and β-actin serves as a loading control for both panels. Immunoblot bands were quantified by densitometry and untreated controls were set to 1.

Figure S4. To determine whether Rac1 reactivation or compensation by other small GTPases was occurring in the 2 shRac1 tumors that developed in the in vivo tumor xenografts in Fig. 6A, the tumors were processed for immunoblot and probed for total Rac1 expression.

Figure S5. Representative blood chimera analyses are displayed from animals from Fig. 7, one and five months post-polyIC injection.
Figure S1

Cell number (x10^6)

Day 0  Day 2  Day 4

TK6 0uM NSC23766
TK6 20uM NSC23766
NH32 0uM NSC23766
NH32 20uM NSC23766

(p53 wt)  (p53 mutant)

Figure S2

Apoptotic Cells (%)

0  5  10  15  20  25  30  35  40

TK6  NH32

(p53 wt)  (p53 mutant)

shSCR  shRac1
Figure S3

<table>
<thead>
<tr>
<th>NSC (μM)</th>
<th>J3D 32°C</th>
<th>J3D 37°C</th>
<th>NSC (μM)</th>
<th>J3D 32°C</th>
<th>J3D 37°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>0</td>
<td>10</td>
<td>20</td>
<td>20</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>0</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>p53ts</td>
<td>pPAK</td>
<td>pPAK</td>
<td>pPAK1/PAK1/β-actin</td>
<td>pPAK1/PAK1/β-actin</td>
<td></td>
</tr>
<tr>
<td>0.32</td>
<td>0.42</td>
<td>0.42</td>
<td>0.42</td>
<td>0.40</td>
<td>0.40</td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>pERK</td>
<td>pERK</td>
<td>pERK</td>
<td>pERK</td>
<td>pERK</td>
<td>pERK</td>
</tr>
<tr>
<td>0.68</td>
<td>0.74</td>
<td>0.74</td>
<td>0.74</td>
<td>0.74</td>
<td>0.74</td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>pp38</td>
<td>pp38</td>
<td>pp38</td>
<td>pp38</td>
<td>pp38</td>
<td>pp38</td>
</tr>
<tr>
<td>0.26</td>
<td>0.30</td>
<td>0.30</td>
<td>0.30</td>
<td>0.30</td>
<td>0.30</td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Figure S4

Day 73

BL41 ahSCR-a
BL41 ahSCR-b
BL41 ahSCR-c
BL41 ahSCR-d
BL41 shRac1-a
BL41 shRac1-b

Rac1
Gapdh

Figure S5

p53−/−, Mx Rac1

- Poly IC  + Poly IC

Mouse #

% Chimerism

Month 1  Month 5