

Table S1. Development of embryonal rhabdomyosarcoma in *Trp53^{+/-}mdx*, *Trp53^{-/-}mdx* and cardiotoxin (Ctx)-treated *Trp53^{-/-}* mice

Age (months)	Mouse weight (g)	Tumour weight (g)	Anaplasia	Necrosis	Tumour location
<i>Trp53^{+/-}mdx (6 of 34 with multiple tumours)</i>					
8	43.1	8.8	+	+	R scapula
9	40.6	1.0,1.2,1.0	-,-,-	-,-,-	R hindlimb, R back, L back
8	36.4	7.4	+	+	L abdominal wall
7	34.1	5.8	+	-	L hip
5	28.9	4.1	-	+	L forelimb
7	33.4	9.7	+	+	L abdominal wall
6	32.6	0.7	+	-	L hip
9	32.5	2.0, 1.0	-,-	-,-	L abdominal wall, R chest
6	29.5	2.4	-	-	L back
7	33.7	3.5,1.8	-,-	+,+	L hip, R hip
7	31.4	7.9	-	+	R torso
7	27.2	3.9	+	+	R hip
6	26.7	2.9	-	-	R back
9	51.6	2.6, 12.9	-,-	+,+	R chest, L hip
7	37.7	4.1	-	+	R hindlimb
9	35.0	2.5	+	+	R abdominal wall
6	33.7	4.2	+	+	L flank
11	46.9	9.5	+	+	R abdominal wall
8	38.4	1.9, 1.0, 0.9, 2.6	+,+,-,-	+,+,-,-	Abdomen, R limb, R hip, back
4	27.1	1.0	+	-	L thorax
6	33.2	1.3	-	-	L thorax
6	34.9	1.2	+	-	L shoulder
6	29.0	1.0	+	-	R shoulder
5	28.5	1.2	-	-	R hip
5	27.0	1.4	+	-	R back
11	48.0	5.6	+	+	R hip
4	29.7	3.3	-	+	R hip
5	38.9	4.9	+	+	R hindlimb
3	26.9	1.6	-	-	L hindlimb
8	37.1	6.4, 2.0, 1.3, 0.7	-,+,-,-	-,+,-,-	L & R hindlimb, R & L flank
11	37.4	6.1	+	+	L hindlimb
9	48.3	8.0	+	+	Back
9	43.1	1.7	+	-	L hip
7	40.3	4.2	-	+	R hip
<i>Trp53^{-/-}mdx (10 of 20 with multiple tumours)</i>					
4	34.8	4.5	+	-	L hip
4	31.3	1.1	+	+	R hip
4	38.7	4.0	+	+	L hindlimb
5	31.6	0.8	-	+	L shoulder
4	32.0	0.9	+	+	L shoulder
5	36.3	2.3	+	+	R hip
4	36.7	1.0, 1.3	+,-	+,-	R hip, L hindlimb
4	31.5	2.0, 2.0	+,+	+,+	L & R flank
4	33.4	2.6, 2.4	+,+	+,-	R & L hindlimb
5	33.1	2.3, 4.3	-,+	+,+	Flank, L hindlimb
5	36.0	3.0	-	-	Abdominal wall
4	34.9	1.6	-	+	L hindlimb
4	41.4	2.3, 2.0, 1.2	+,+,+	-,+,-	R Forelimb, L & R hindlimb
5	38.0	3.5	-	+	Abdominal wall
5	30.6	0.8, 3.2	+,-	-,+	L hindlimb, R abdominal wall
3	31.1	2.3	-	+	L hindlimb
5	27.1	1.7, 2.1	+,-	-,+	R forelimb, abdominal wall
4	32.8	0.42, 0.2	+,+	+,+	L hip, head
4	31.3	0.6, 1.7	+,-	+,+	L & R hip
4	50.3	2.6, 1.7	-,+	+,-	L hindlimb, R hip

Ctx-treated Trp53^{-/-} (L hindlimb muscles; 1 of 10 with multiple tumours)

2*	14.0	0.6	+	+	L hindlimb
3*	24.3	1.2	-	+	L hindlimb
4*	23.6	1.7	+	+	L hindlimb
4*	25.2	1.5	-	+	L hindlimb
5*	23.6	1.7	-	-	L hindlimb
5*	28.6	1.4	+	+	L hindlimb
4*	28.0	1.3	-	-	L hindlimb
4*	26.1	0.4, 1.3	-,+	-,+	L hindlimb, L hindlimb
4**	23.2	1.5	+	+	L hindlimb
5**	28.1	1.3	-	-	L hindlimb
4**	23.2	1.5	-	-	L hindlimb

Ctx-treated Trp53^{+/+} (L hindlimb muscles)

None

*Injected 1x/7 days from 4 weeks of age onwards.

**Injected 1x/14 days from 4 weeks of age onwards.