

**Table S1. Summary of the radiation injury score**

| Genotype         | IR    | Days post-IR | Histology score | Serosa | ulceration | atypia | vascular sclerosis | wall fibrosis | lymph | ileitis cystica profunda |
|------------------|-------|--------------|-----------------|--------|------------|--------|--------------------|---------------|-------|--------------------------|
| VECre; p53 FL/+  | No    |              | 0               | 0      | 0          | 0      | 0                  | 0             | 0     | 0                        |
| VECre; p53 FL/+  | No    |              | 0               | 0      | 0          | 0      | 0                  | 0             | 0     | 0                        |
| VECre; p53 FL/FL | No    |              | 0               | 0      | 0          | 0      | 0                  | 0             | 0     | 0                        |
| VECre; p53 FL/FL | No    |              | 0               | 0      | 0          | 0      | 0                  | 0             | 0     | 0                        |
| VECre; p53 FL/+  | 15 Gy | 32           | 0               | 0      | 0          | 0      | 0                  | 0             | 0     | 0                        |
| VECre; p53 FL/+  | 15 Gy | 32           | 0               | 0      | 0          | 0      | 0                  | 0             | 0     | 0                        |
| VECre; p53 FL/+  | 15 Gy | 73           | 2               | 0      | 0          | 1      | 0                  | 0             | 1     | 0                        |
| VECre; p53 FL/+  | 15 Gy | 73           | 0               | 0      | 0          | 0      | 0                  | 0             | 0     | 0                        |
| VECre; p53 FL/FL | 15 Gy | 32           | 3               | 1      | 0          | 1      | 0                  | 0             | 1     | 0                        |
| VECre; p53 FL/FL | 15 Gy | 38           | 7               | 1      | 1          | 2      | 1                  | 1             | 1     | 0                        |
| VECre; p53 FL/FL | 15 Gy | 32           | 9               | 2      | 2          | 2      | 1                  | 1             | 1     | 0                        |
| VECre; p53 FL/FL | 15 Gy | 32           | 6               | 1      | 1          | 1      | 1                  | 1             | 1     | 0                        |