

Supplementary Table S1. The difference of cellular response to ionizing radiation among species. +: effective; -: defective; N.D.: Not Determined.

| Species | Cell Cycle Checkpoints | Predominant DNA Repair Pathway | Apoptosis |
|----------------|---|---------------------------------------|---|
| Mammals | G1/S checkpoint: - G2/M checkpoint: + | Homologous recombination | From two-cell stage in mouse |
| Xenopus | After midblastula transition | N.D. | After onset of gastrulation |
| Fish | After midblastula transition in zebrafish | N.D. | After mid-gastrulation stage in zebrafish |