**Supplementary Table S1.** Individuals used for the chromosome preparations in this study.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Sample | Fixation | No. of samples | Cells | Locality or crosses |
| Group A | July 2017 | 6 | Embryo | Abashiri, Hokkaido (F) × Abashiri (M) |
| Group A | September 2019 | 5 | Embryo | Abashiri (F) × Abashiri (M) |
| Group B | May 2017 | 4 | Embryo | Nanae, Hokkaido (F) × Nanae (M) |
| Group B | May 2019 | 2 | Embryo | Nanae (F) × Nanae (M) |
| Inter-group hybrid | May 2017 | 3 | Embryo | Nanae (F) × Abashiri (M) |
| Inter-group hybrid | November 2018 | 3 | Embryo | Ishikawa (F) × Abashiri (M) |
| Clone | July 2017 | 2 | Embryo | Clone (F) × Goldfish (M)＊ |
| Clone | July 2018 | 1 | Embryo | Clone (F) × Goldfish (M)＊ |
| Clone | July 2018 | 2 | Kidney | Abashiri |
| Clone | August 2018 | 3 | Embryo | Clone (F) × Goldfish (M)＊ |
| Clone | December 2018 | 1 | Kidney | Abashiri |
| Clone | September 2019 | 3 | Embryo | Clone (F) × Goldfish (M)＊ |
| Clone male | July 2018 | 2 | Testis | Clone (F) × Goldfish (M)＊ |
| Clone-origin triploid | April 2014 | 1 | Kidney | Abashiri |
| Clone-origin triploid | September 2018 | 1 | Kidney | Abashiri |

F: Female and M: Male.

＊UV irradiated sperm