

# Zebrafish Core Facility – Available Background Lines 2020

## Inbred Homogeneous Wild-Type Lines (High Reproducibility)

### **AB**

The classic zebrafish wildtype line derived from lines A and B. The line was created by selecting females producing high quality haploid embryos in order to reduce the number of lethal genetic mutations and crossing them to unselected males. The AB line is the most commonly used background zebrafish line in research.

### **Tubingen (TU)**

Originally purchased from a pet store in Tuebingen, Germany. This line has been used extensively for identification of genetic mutations affecting embryogenesis and was used for the zebrafish genome project.

### **WIK**

The wild Indian karyotype (WIK) line is more polymorphic than the TU line and is commonly used for genetic mapping.

## Pet Store Wild-Type Lines (High Natural Relevance)

### **Shortfin WT**

The shortfin WT line was acquired through a local pet store in 2019 that derive from natural pond cultures of zebrafish in India. These fish are larger than inbred lines and are useful for research related to natural studies.

### **Longfin WT**

The longfin WT line was acquired through a local pet store in 2019 that derive from natural pond cultures of zebrafish in India. These fish are homozygous for the *lof* allele, giving them long fins, and are larger than inbred lines and are useful for research related to natural studies.

## Mutant Lines (High In-Vivo Visualization Capabilities)

### Casper

The Casper line was originally created for better visualization with in-vivo transplantations. The line has since become very popular for many fluorescent transgenic lines as it allows for better visualization of associated gene expression, particularly in adults where pigmentation would typically impair visualization. The Casper line is the result of two recessive mutations that prevent differentiation of iridophores (*mpv17<sup>a9</sup>*) and melanocytes (*mitfa<sup>w2</sup>*).

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2292119/>