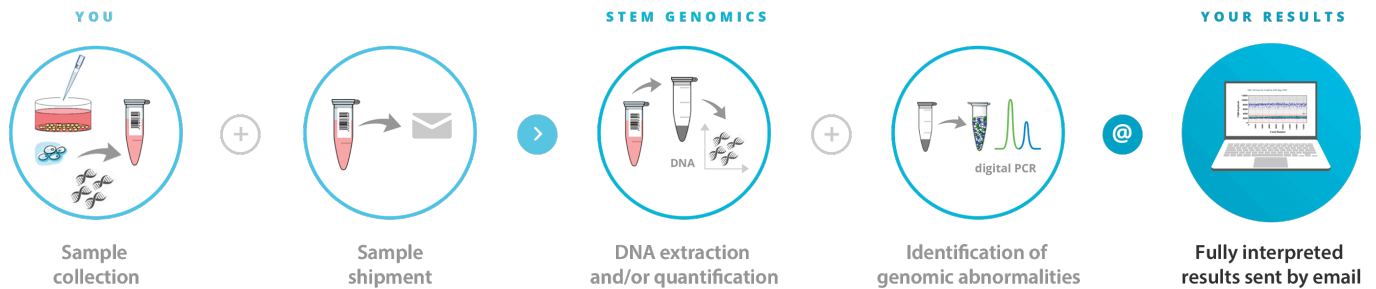


# SOLUTION

# iCS-digital™ Aneuploidy

The In Culture Supernatant - digital PCR Aneuploidy (iCS-digital™ Aneuploidy) test detects whole chromosome gains & losses in all chromosomes (22 autosome pairs and X and Y chromosomes) and in any human cell type.



CELL TYPES	STAGES	SAMPLES	SHIPMENT	COVERAGE	MOSAICISM	TIME
Any human cells	Any	- gDNA - Cell culture supernatant (> 70% confluence) - Cell pellet	- Room temperature - Room temperature  - Dry ice	Aneuploidy of any of the 24 chromosomes: whole chromosome gains & losses	>20% (depending on sample quality)	2-3 days after sample reception

## RATIONALE

Adult stem cells (mesenchymal, tissue-specific stem cells, etc.) are used in basic research and regenerative medicine. Their genomic stability during passaging is critical to avoid result misinterpretation, and unexpected complications in clinical therapies. Therefore, their genomic integrity should be regularly monitored.

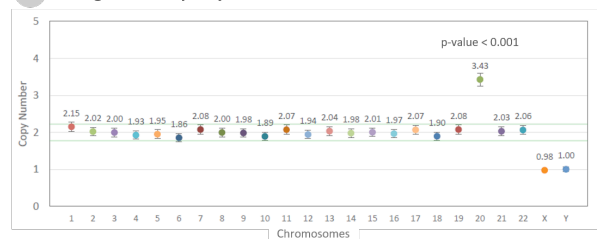
By using 24 well-designed probes that target all 24 human chromosomes, the in Culture Supernatant-digital PCR (iCS-digital™) Aneuploidy test allows detecting whole chromosome gains and losses (trisomy, tetrasomy, monosomy, etc.).

This test is particularly useful to detect aneuploidy in adult stem cells, their differentiated derivatives and potentially any cell type. However, for embryonic and induced pluripotent stem cells, the iCS-digital™ PSC test is more specific.

**A** Ideogram representation



**B** iCS-digital™ Aneuploidy result



*The iCS-digital™ Aneuploidy test is a non-invasive tool to detect whole chromosome gains & losses in the 24 human chromosomes for the routine monitoring of cell genomic stability. This new test can change how quality control is implemented for cell use in basic research and regenerative medicine.*

