

# GENE EXPRESSION ANALYSIS FOR CELL CHARACTERIZATION

## qPCR Arrays

Real-time or quantitative PCR (qPCR) arrays are a highly reliable and sensitive technology to analyze gene expression levels for cellular characterization. Gene-specific primers amplify target cDNA reverse-transcribed from mRNA samples and fluorogenic-labeled probes use the 5' nuclease activity of Taq DNA polymerase to produce a signal, ensuring only specific amplification products fluoresce. The rate of accumulation of the fluorescent signal is used to quantify the amount of cDNA, and thereby the amount of mRNA present in the original sample.

Each 96-well or 384-well qPCR array plate includes a carefully researched panel of highly-relevant genes and (housekeeping) control genes, and qPCR Array Control Template is provided as a synthetic DNA positive control. The qPCR Master Mix contains Taq DNA polymerase, dNTPs, MgCl<sub>2</sub>, enhancers and stabilizers and supports probe-based qPCR assays and arrays. Quickly analyze qPCR results with our flexible online data tool at [www.stemcell.com/qPCRanalysis](http://www.stemcell.com/qPCRanalysis).

### Why Use Our qPCR Arrays?

**CONVENIENT.** Save valuable research time with preselected gene panels and validated primers and probes.

**ACCURATE.** Detect only specific amplification products with fluorogenic-labeled probe technology.

**REPRODUCIBLE.** Reliable and consistent performance under standard and fast cycling conditions with qPCR Master Mix containing Taq DNA polymerase.

**EASY TO USE.** Ideal for routine use and supported by a user-friendly, versatile online data analysis tool.

PRODUCT	SIZE	DESCRIPTION	CATALOG #
Human Pluripotent Stem Cell Trilineage Differentiation qPCR Array	384-well plate	For characterization of human pluripotent stem cell trilineage differentiation to endoderm, mesoderm and ectoderm germ layers	07515
Human Pluripotent Stem Cell Naïve State qPCR Array	96-well plate	For characterization of gene expression associated with pluripotent stem cell primed or naïve states	07521
Human Pluripotent Stem Cell-Derived Endoderm qPCR Array	96-well plate	For characterization of human pluripotent stem cell (hPSC)-derived progenitor cells of definitive endoderm, hepatic, intestinal or pancreatic lineages	07531
Human Mesenchymal Stem Cell qPCR Array	96-well plate	For characterization of human mesenchymal stem cells (MSCs) and their differentiation to chondrogenic, adipogenic or osteogenic lineages	07541
qPCR Master Mix Kit	1 mL 5 mL	Contains qPCR Master Mix and ROX Reference Dye for probe-based assays and arrays	07516 07517



Figure 1. qPCR Array Workflow

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