

MSCFluor™-96 Research

Mesenchymal Stem / Stromal Cell (MSC) Fluorescence Proliferation and Viability Assay

An accurate, sensitive, and highly reliable assay for MSCs that allows MSC phenotypic characterization and replaces the CFU-F assay

Advantages of Using MSCFluor™-96 Research

- Quantitatively measures MSC proliferation ability, potential and viability.
- Study MSC self-renewal capability.
- Quantify MSC expansion / passage ability.
- Follow MSC differentiation ability into different lineages.
- Replaces the manual and subjective CFU-F assay.
- Stromal cell assay applications.
- Determine the effects of growth factors/cytokines on MSCs and differentiation.
- *In vivo* to *in vitro* assays.
- MSC gene targeting assays.
- Multiplex with flow cytometry and other assays to characterize the MSC sample.
- Incorporates high-performance, low serum, serum-free or humanized MSCGro™ Medium for exceptional MSC expansion and growth.
- Non-subjective readout, that detects protease activity only in living cells. Fluorescence produced only when a GF-AFC substrate is cleaved by protease activity to produce a fluorescence signal proportional to the number of living cells.
- Single addition reagent that allows the signal to be measured between 30 minutes and 3 hours of incubation.
- Uses a fluorescence or multimode plate reader to measure fluorescence with an excitation filter of 380-400nm and an emission filter of 505nm. Non-subjective, instrument-based and quantitative assay system.
- Multiplexes with flow cytometry protocols using other fluorescent labels, e.g. FITC, PE, PECy5, PerCP-Cy5, PE-Cy7 etc., as well as bioluminescence assays.
- Easily compare results over time. Always reliable and reproducible results with very low variation.
- Results usually obtained in 2-3 days (depending on MSC potential and species).
- Easy to learn, fast to use.

The Most Powerful Fluorescence Assay Available for Your MSC Research



Assays You Can Trust
Innovative Expertise You Can Count On

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Research can be used for the following species:

- Human
- Non-human primate
- Rat
- Mouse
- Dog (New)
- Horse (New)

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can be used for MSCs from, but not limited to, the following tissues:

- Bone marrow
- Cord blood
- Wharton's Jelly
- Adipose tissue
- iPS-derived MSCs

MSCFluor™-96 Research Kit Contents:

- MSCGro™ Medium of choice
- GF-AFC Reagent
- Sterile, clear 96-well plates
- Sterile, adhesive foil covers
- Instruction manual

MSCGro™ Growth and Expansion Medium Available :

- MSCGro™ Low serum complete
- MSCGro™ Serum-free complete
- MSCGro™ Humanized complete
- MSCGro™ Humanized serum-free complete

MSCGro™ Differentiation Medium Available:

- MSCGro™ Osteogenic Differentiation Medium
- MSCGro™ Adipogenic Differentiation Medium
- MSCGro™ Chondrogenic Differentiation Medium

All formulations of MSCGro™ medium are available as 100ml and 500ml bottles.

MSCFluor™-96 Research Assay Kits Available:

Catalog Number	MSCGro™ Medium included:	Kit Size
KMCF-LS-1	Low Serum, complete	1 x 96-well plates
KMCF-SF-1	Serum-free, complete	1 x 96-well plate
KMCF-HM-1	Humanized, complete	1 x 96-well plate
KMCF-HSF-1	Humanized, serum-free	1 x 96-well plate
KMCF-CLS-1	Canine, low serum complete	1 x 96-well plate
KMCF-CSF-1	Canine, serum-free complete	1 x 96-well plate
KLMC-EQLS-1	Equine, low serum complete	1 x 96-well plate
KMCF-EQSF-1	Equine, serum-free complete	1 x 96-well plate



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