Stem Cell Characterization Contract Services

Stem cells are defined as self-renewing, undifferentiated cell populations with the highest proliferation potential. With over 40 years experience in the stem cell biology field and the most advanced stem cell assays available, HemoGenix® has the expertise you need to characterize stem cells at the cellular level for use in toxicity testing and to measure their quality and potency for cell therapy and regenerative medicine applications.

Ensuring the Way Forward.

Advantages of Outsourcing Stem Cell Characterization Studies to HemoGenix®

- Primary stem cells represent a very small population of cells in a tissue or organ. Yet they have extraordinary properties that can only be detected using the right assays. HemoGenix® has developed assays specifically for this purpose.
- The assays offered by HemoGenix® have been designed to measure characteristics specific for stem cell populations.
- All contract stem cell studies are customized for specific client goals and to obtain the maximum amount of information in the most cost-effective manner.
- All studies are available as non-GLP or GLP contract services.
- Assay kits are also available for characterizing stem cells and contain virtually everything you need to perform the assay, except the cells.
- Proprietary Bioluminomics™ (standardized ATP bioluminescence) assays have been validated according to FDA Bioanalytical Method Guidelines.
- Bioluminomics™ assays allow direct comparison of results over time.
- All Bioluminomics™ assay are calibrated and standardized, incorporate the most sensitive ATP bioluminescence readout available to measure proliferation, cytotoxicity, cell number and even apoptosis and demonstrate low CVs and high reliability and reproducibility.
- Bioluminomics™ assays exhibit high-throughput capability using 96-well plate formats.
- All stem cell culture techniques use specialized high performance media to provide the maximum growth and sensitivity for the assays.
- Fast turnaround: Stem cell studies are usually completed in about 7 days. The initial report is usually sent within 5-7 business days.
- All HemoGenix ® assays have been designed for multiplexing. For stem cell characterization this means that the assays can be combined with stem cell detection assays such as flow cytometry or even with gene expression molecular assays.

HemoGenix®
Changing the Paradigm

Assays You Can Trust
Innovative Expertise You Can Count On

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Stem Cell Characterization Contract Services

HemoGenix® Stem Cell Characterization Assays:

- **HALO®-96** proliferation assays for lympho-hematopoietic stem cells.
- **HALO®-96 PREP** to determine stem cell self-renewal and expansion potential.
- **HALO®-96 SPC-QC** for stem cell quality.
- **HALO®-96 PQR** for stem cell potency
- **CAMEO™-96:** Clonal stem cell determination assays for lympho-hematopoietic stem cells.
- **LUMENESC™-96** for mesenchymal stem/stromal cells (MSC).
- **LUMENESC™-96 HuQC** for human MSC quality.
- **LUMENESC™-96 PQR** for MSC potency.
- **STEMGlo-96™** for primary stem cells and stem cell lines (e.g. ES and iPS cells).
- **STEMGlo™-PREP** for stem cell self-renewal and expansion potential.
- **STEMClone™**: Clonal determination assays for primary stem cells and stem cell lines.

Species Available for Stem Cell Characterization Studies

(Not all of the following species are available for specific assays. Please contact HemoGenix® for further information)

- Human
- Non-human primate
- Horse
- Pig
- Sheep
- Dog
- Rat
- Mouse

Stem Cell Systems Available for Toxicity Testing:

- ES cells and ES-derived stem cells.
- iPS cells and iPS-derived stem cells.
- Lympho-hematopoietic stem cells.
- Mesenchymal stem/stromal cells system
- Primary stem cells freshly isolated from different tissues.

Our Contract Services Workflow

- Discuss prospective study to understand your goals.
- Prepare quote and revise if required by client.
- Prepare study plan and revise for client's acceptance.
- Shipment of test articles to HemoGenix®.
- Procurement of target tissue/cells for study.
- Arrival of tissues/cells and start of study.
- Completion of study usually within 2 weeks or less.
- Phase I Final Report provided between 5-7 days.
- QA audit.
- Phase II Final Report and study termination.

Additional Contract Services Available from HemoGenix®

- Stem and progenitor cell hemotoxicity
- Immunotoxicity testing
- Toxicity to the mesenchymal stem/stromal cell (MSC) system
- Hepatotoxicity
- Neural stem cell toxicity
- Drug-drug interactions

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