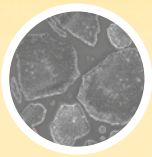


# Embryonic and induced pluripotent stem cells

## Highlighted products

### StemMACS iPS-Brew XF



- Xeno-free culture system for human ES and iPS cells
- Easy transition to feeder-free conditions
- Formulation compliant with future clinical translation

► [Learn more](#)



### StemMACS™ Small Molecules

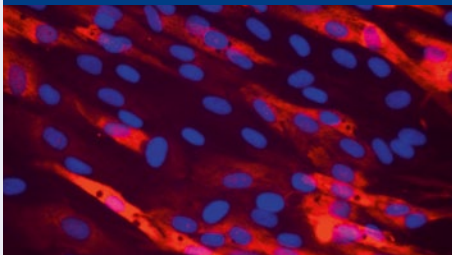


- Highly pure for consistent biological activity
- Pre-tested on stem cell cultures
- Detailed instructions for preparation of stock solutions

► [Request your free poster](#)



### StemMACS™ mRNA Technology



- Modified mRNAs for modulation of cell fate by mRNA transfection
- Optimized sequences, validated expression
- Validated protocol for mRNA reprogramming

► [Download the mRNA reprogramming manual](#)



### Human FGF-2 IS



- Improved sequence for increased stability in cell culture
- Standardized, high biological activity
- Produced in *E. coli*, free of animal components

► [See the data](#)





For more information visit  
[www.miltenyibiotec.com/stemcells](http://www.miltenyibiotec.com/stemcells)



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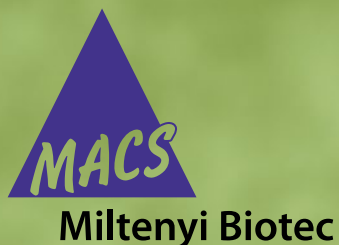
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# Stem Cells by Miltenyi Biotec

Quick  
guide  
inside!

► [miltenyibiotec.com/stemcells](https://miltenyibiotec.com/stemcells)

# Embryonic and induced pluripotent stem cells

Pioneering solutions for ES and iPS cells research



# Hematopoietic stem cells

Making headway in your HSC research

## Sample preparation

- Dead Cell Removal Kit
- Pre-Separation Filters

- Smart Strainers
- Red Blood Cell Lysis Solution



## Human samples

### Isolation of HSCs

- CD34 MicroBead Kit UltraPure
- CD133 MicroBead Kit – Hematopoietic Tissue
- CD117 MicroBead Kit
- Lineage Cell Depletion Kit
- Flow sorting using the MACSQuant Tyto and your favorite marker panel

## Mouse samples

### Isolation of HSCs

- Lineage Cell Depletion Kit
- Anti-Sca-1 MicroBead Kit (FITC)
- CD117 MicroBeads
- CD105 MultiSort Kit (PE)
- Flow sorting using the MACSQuant Tyto and your favorite marker panel

## Culture of HSCs

### Expansion

- StemMACS HSC Expansion Media XF
- StemMACS HSC Expansion Cocktail
- MACS Cytokines, including TPO, SCF, Flt3-Ligand, Il-3, Il-6

### Differentiation

- StemMACS HSC-CFU Media
- MACS Cytokines, such as Il-7, GM-CSF

## Culture of HSCs

### Expansion

- MACS Cytokines, including SCF, Flt3-Ligand, Il-3, Il-6

### Differentiation

- MACS Cytokines, such as Il-7, GM-CSF

## Phenotyping and flow cytometry

MACSQuant Flow Cytometers in combination with fluorochrome-conjugated MACS Antibodies including:

- CD34
- CD133
- CD45
- CD38
- CD90

**CHECK OUT OUR  
EXCLUSIVE VIO® DYES!**

## Phenotyping and flow cytometry

MACSQuant Flow Cytometers in combination with fluorochrome-conjugated MACS Antibodies, such as

- Lineage markers
- Sca-1
- CD117 (c-kit)
- CD135 (Flt3)

## Molecular analysis of HSCs

- $\mu$ MACS™ mRNA Isolation Kit
- $\mu$ MACS Protein Isolation Kits (epitope tags, protein A/G)
- MultiMACS™ M96 Separator
- SuperAmp™ Technology – cDNA from just a few cells
- Magnetic mitochondria isolation
- Enhanced viral transduction with MACSductin

## Translate research to clinical applications

- MACS GMP Cytokines
- CliniMACS® and CliniMACS Prodigy®
- CliniMACS Reagents, including CD133

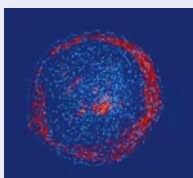
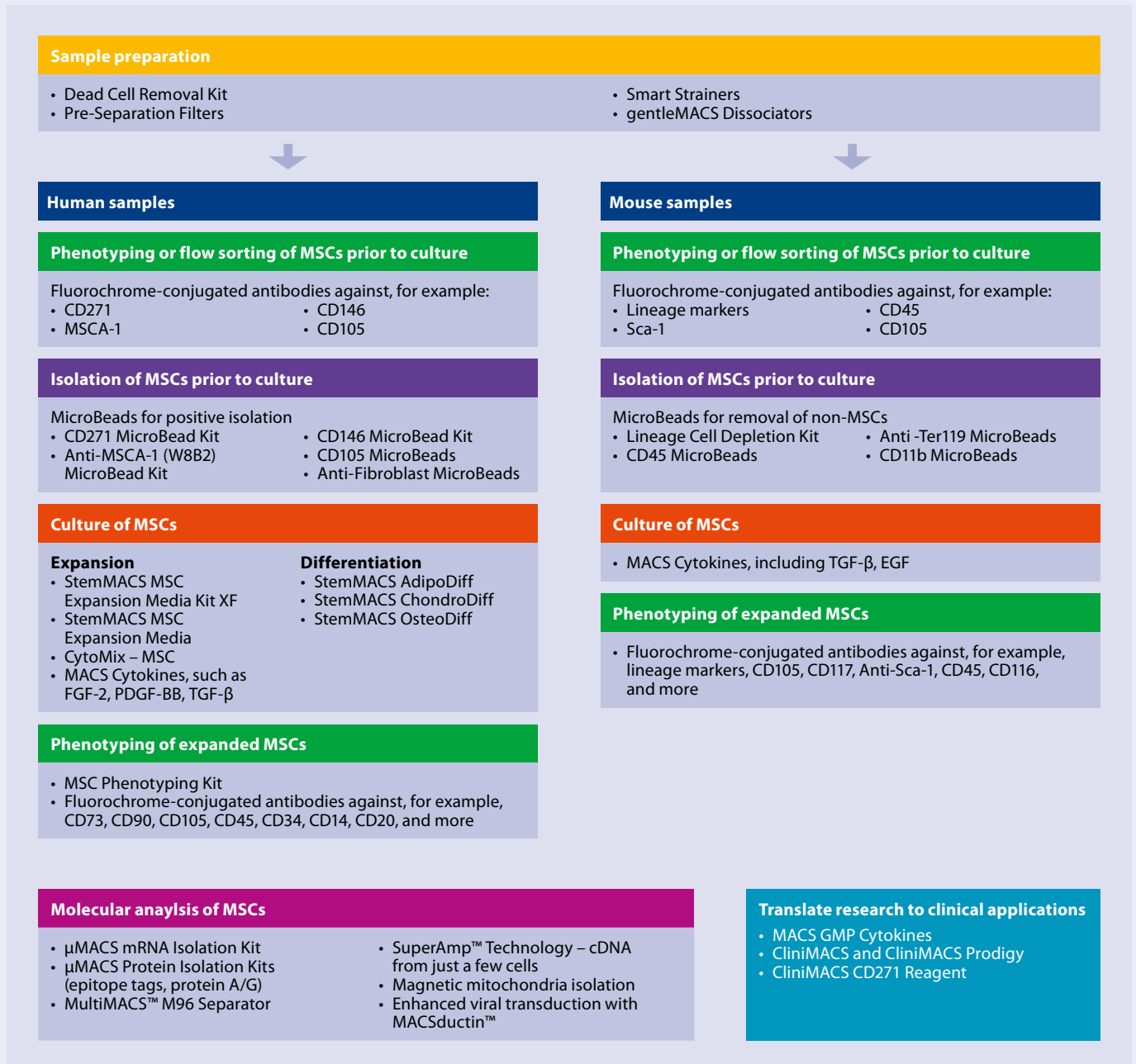


### StemMACS HSC Expansion Media XF

- Xeno-free expansion of hematopoietic stem and progenitor cells
- Consistently high expansion rates
- High CD34<sup>+</sup> cell content after expansion

# Mesenchymal stem cells

Driving your MSC research



## StemMACS MSC Expansion Media Kit XF

- Xeno-free expansion of human mesenchymal stem cells
- No attachment substrate required
- Excellent expansion rates