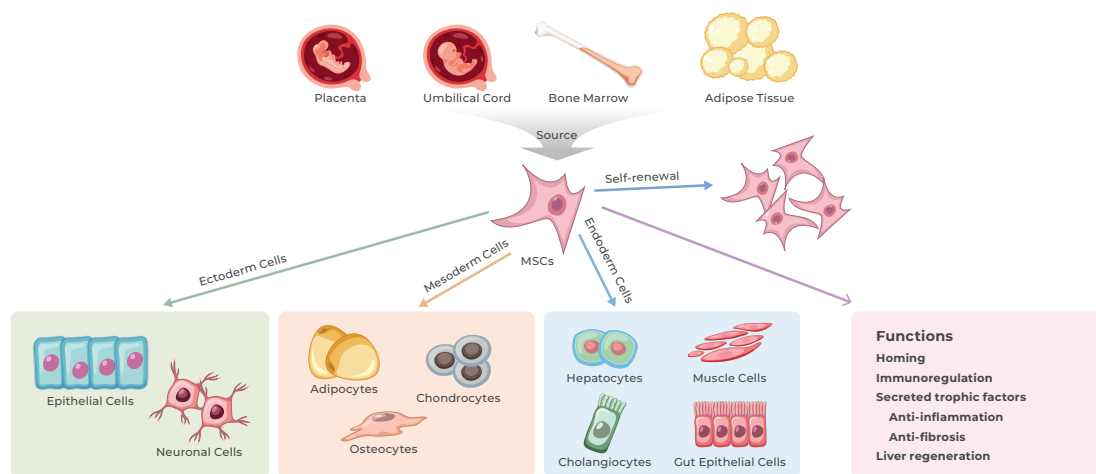


# Mesenchymal Stem Cell (MSC) Solutions

Mesenchymal stem cells (MSCs) are a critical component of the stem cell family, originating from the mesoderm. They possess remarkable self-renewal capacities and have the potential to differentiate into various cell types. MSCs are widely distributed across various tissues, can be cultured and expanded in vitro, and can differentiate into nerve cells, osteoblasts, chondrocytes, muscle cells, adipocytes, and more under specific conditions.



We offer a range of high-quality products, including matrix proteins, growth factors, cytokine ELISA kits, and recombinant factor C endotoxin fluorescent assay kit, to comprehensively support MSC culture and quality control research.

## MSC Culture

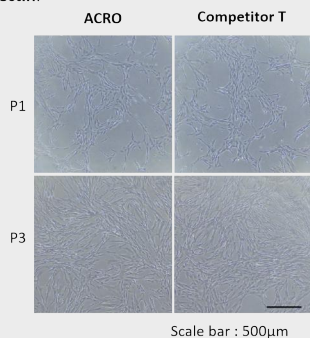
### - Matrix Proteins

Fibronectin is a natural cell adhesion factor. In a 2D culture environment, the external addition of Fibronectin can promote MSC adhesion, growth, and proliferation.

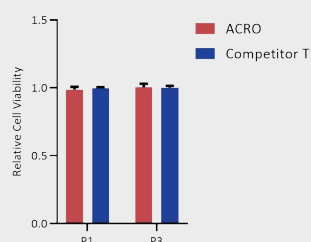


Scan the QR  
to learn more

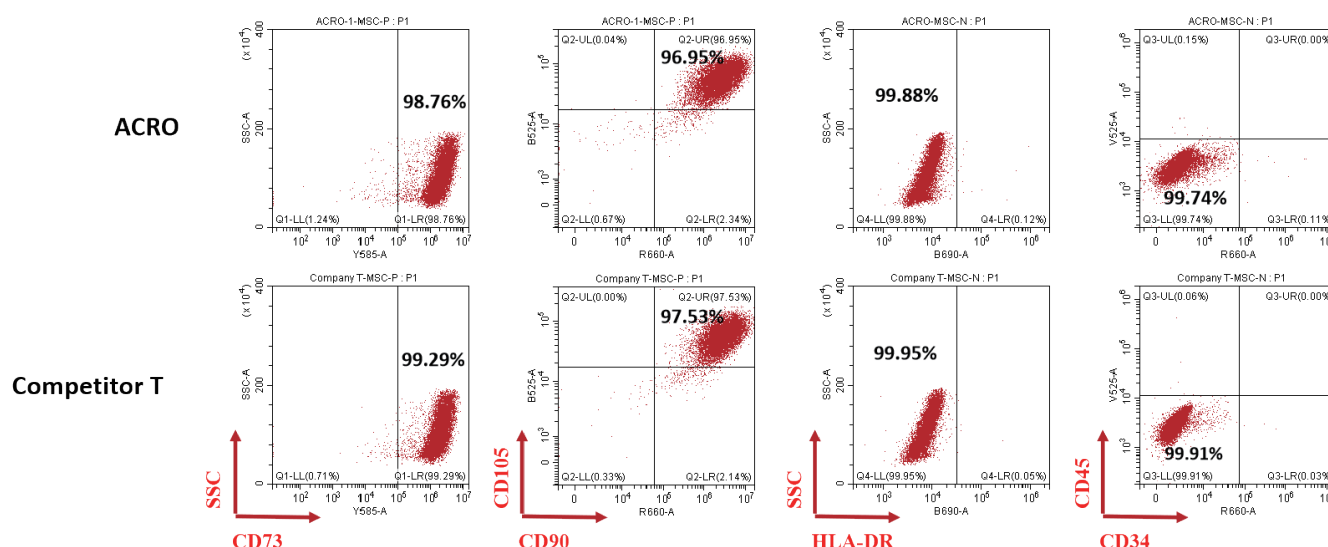
Fibronectin:



Cell Proliferation-Fibronectin



Fibronectin (FIN-H5113) could promote mesenchymal stem cell adhesion and proliferation in several passages, comparable with Competitor T.



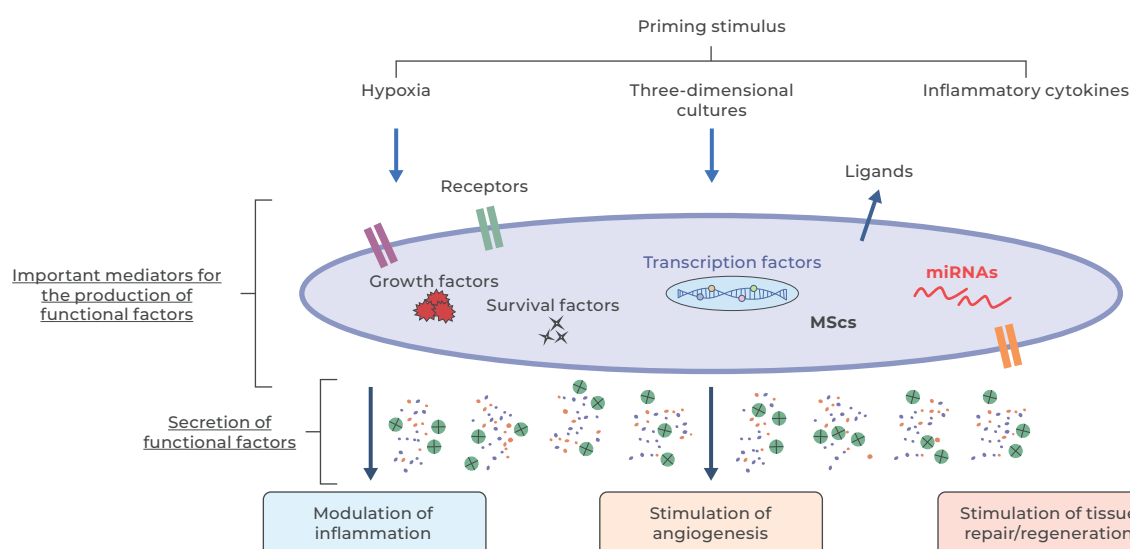
Fibronectin (FIN-H5113) could maintain the identity and purity of mesenchymal stem cells (CD73<sup>+</sup> CD90<sup>+</sup> CD105<sup>+</sup> HLA<sup>-</sup> DR<sup>-</sup> CD34<sup>-</sup> CD45<sup>-</sup>) by flow cytometry, comparable with Competitor T.

## - Growth Factors for MSC Culture

EGF	FGF2	HGF	IFN- $\gamma$
IL-1 $\beta$	IL-2	IL-4	IL-6
IL-10	IL-12	IL-15	IL-18
PDGF-BB	TNF- $\alpha$	TGF- $\beta$ 1	VEGF

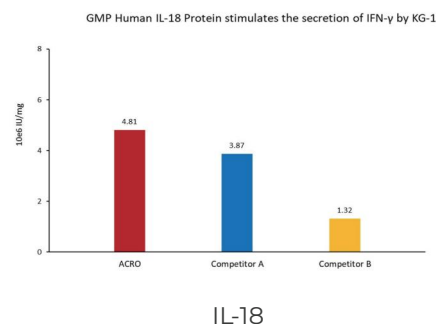
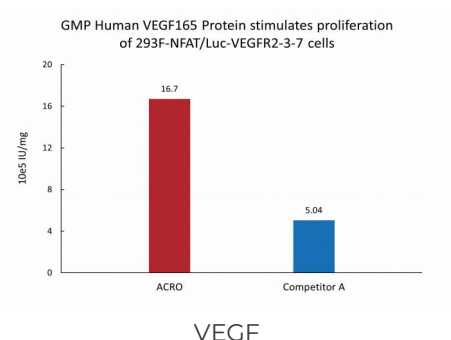
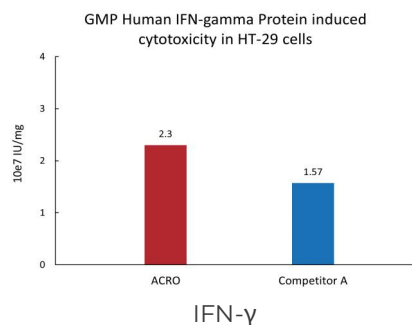
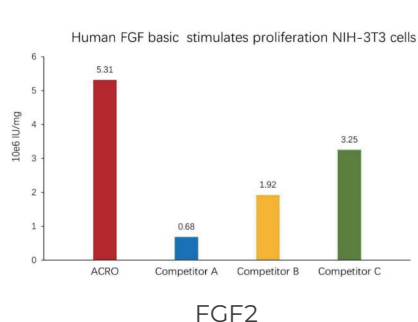


Scan the QR  
to learn more



World J Stem Cells. 2023;15(5):400-420. doi:10.4252/wjsc.v15.i5.400

Empowering MSCs with inflammatory factors is considered one of the most commonly used methods to simulate an in vivo inflammatory microenvironment. This approach can enhance the cell migration, chemotactic ability, and immune regulation of MSCs, promote the secretion of exosomes, and facilitate rapid transfer to damaged tissues, thereby improving the therapeutic efficacy of MSC-based treatments.



## MSC Quality Control

### - ClinMax™ Cytokine Detection ELISA Kits

Our ClinMax™ ready-to-use ELISA kits can analyze MSC secretions to support research on immune regulation, angiogenesis, anti-apoptosis, and other areas.

Catalog#	Product
CRS-B012	Human HGF ELISA Kit
CEA-B036	Human MCP-1 / CCL2 ELISA Kit
CEA-C068	Human VEGF ELISA Kit
CEA-C078	Human SCF ELISA Kit
CRS-B001	Human IL-6 ELISA Kit
CRS-B005	Human IL-10 ELISA Kit
CEA-C080	Human EGF ELISA Kit
CEA-C083	Human TGF-β1 ELISA Ki
FCM-C05R	ClinMax™ Human Th1/Th2 Cytokine Kit (Flow Cytometry Multiplex Bead Assay)

### - Recombinant Factor C Endotoxin Fluorescent Assay Kit

- ✓ Endotoxin Specific: Recombinant technology eliminates false-positive glucan reactions.
- ✓ Reduced Lot-to-Lot Variability: Ensures consistency between and throughout batches.
- ✓ High Sensitivity: Detects endotoxins with a sensitivity of 0.004 EU/mL.
- ✓ Sustainable Resource: Elimination of reagents harvested from animal sources.
- ✓ Endpoint Fluorescent Assay: Comparable to other quantitative LAL methods.
- ✓ Comprehensive and rigorous validation.
- ✓ Compliance & Recognition: Complies with USP standards.

## - Mycoplasma Detection Assay Kit

The Mycoplasma detection kit can sensitively and reliably detect mycoplasma contamination in biological products, meeting or exceeding the regulatory guidance requirement of 10 CFU per milliliter. This assay method no longer relies on time-consuming culture based methodology, simplifies the mycoplasma detection process, and produces results efficiently within 2.5-3 hours.

- ✓ **Broad Coverage**  
Covers over 250 Mollicutes (Mycoplasma, Acholeplasma and Spiroplasma species, including all mycoplasma species listed in Pharmacopoeias (EP, USP, JP).
- ✓ **Strong Specificity**  
Developed with multiple primers and probes targeting mycoplasma species' 16s rRNA, with no cross-reactivity with closely related non-mycoplasma strains.
- ✓ **High Sensitivity**  
Fully compliant with or superior to regulatory guidance of 10 CFU/mL.
- ✓ **Better robustness**  
Tolerant to various matrices, high cell density ( $10^7$  cells/mL), 10% DMSO, T/NK cell medium, etc.
- ✓ **Convenient Operation**  
Designed for single-well testing, with the kit containing essential components for easy use, sample preparation and qPCR testing with a total operation and run time of only 2.5-3 hours.
- ✓ **Comparable Results**  
Detection results from the assay are comparable to those from culture-based methods.

## - resDetect™ Residual Detection Kits

The resDetect™ residual detection kits offer high sensitivity, high specificity, and excellent quality to support research on residuals during stem cell culture and differentiation.

Catalog#	Product
RES-A055	resDetect™ Human Interleukin-7 (IL-7) ELISA Kit (Residue Testing)
CRS-A024	resDetect™ Human Interleukin-15 (IL-15) ELISA Kit (Residue Testing)
CRS-A010	resDetect™ Human Interleukin-21 (IL-21) ELISA Kit (Residue Testing)
RES-A028	resDetect™ Human Interferon- $\gamma$ (IFN- $\gamma$ ) ELISA Kit (Residue Testing)
CRS-A003	resDetect™ Human Interleukin-2 (IL-2) ELISA Kit (Residue Testing)
CRS-A004	resDetect™ Human Interleukin-4 (IL-4) ELISA Kit (Residue Testing)
CRS-A005	resDetect™ Human Interleukin-6 (IL-6) ELISA Kit (Residue Testing)
RES-A006	resDetect™ Human SCF ELISA Kit (Residue Testing)
RES-A027	resDetect™ Human Tumor Necrosis Factor Alpha (TNF- $\alpha$ ) ELISA Kit (Residue Testing)
RES-A036	resDetect™ Human 4-1BB Ligand ELISA Kit (Residue Testing)
RES-A052	resDetect™ Human Fc Tag DLL4 ELISA KIT (Residue Testing)
RES-A022	resDetect™ Biotinylated Human DLL4 ELISA Kit (Residue Testing)
CRS-A012	resDetect™ Human Interleukin-1 beta (IL-1 beta) ELISA Kit (Residue Testing)
CRS-A008	resDetect™ Human Interleukin-10 (IL-10) ELISA Kit (Residue Testing)
RES-A009	resDetect™ Human FGF2 ELISA Kit (Residue Testing)
RES-A007	resDetect™ Human FLT3L ELISA Kit (Residue Testing)
RES-A034	resDetect™ Human TPO ELISA Kit (Residue Testing)