FUJIFILM
Value from Innovation

Wako

EV-Up™
EV Production Basal Medium for MSC, AF
MSC EV Production Supplement, AF

1. More EVs cultured in EV-Up™ can be collected than in serum media.
2. EV-Up™ produces EVs with high activity.
3. Cell viability can be maintained during EV production.

EV-Up™ EV Production Basal Medium for MSC, AF and EV-Up™ MSC EV Production Supplement, AF are medium and supplement for the effective exosomes (EVs) production from mesenchymal stem cells (MSCs). EV-Up™ as a set composed of the medium and the supplement can be used as a complete medium. These products are serum-free and animal component-free, and applicable to various growth media.

Products information
Medium and its supplement are intended to be used as a set.

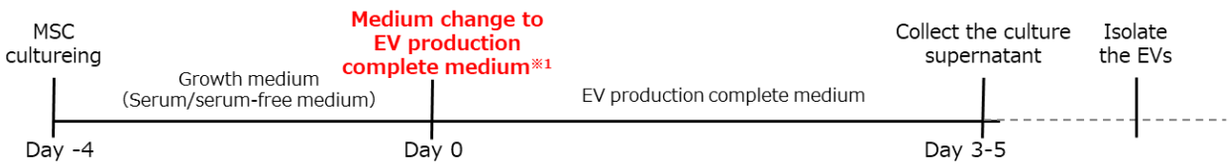
Code No.	Product name	Grade	Pkg. size
053-09451	EV-Up™ EV Production Basal Medium for MSC, AF Ref	For cell culture	95mL
298-84001	EV-Up™ MSC EV Production Supplement, AF F		For 100mL

Applicable cells

The complete medium is applicable for MSCs derived from various tissue sources.

bone marrow, umbilical cord, adipose tissue etc.

Procedure



※1 Mixture of EV-Up™ EV Production Basal Medium for MSC, AF and EV-Up™ MSC EV Production Supplement, AF.

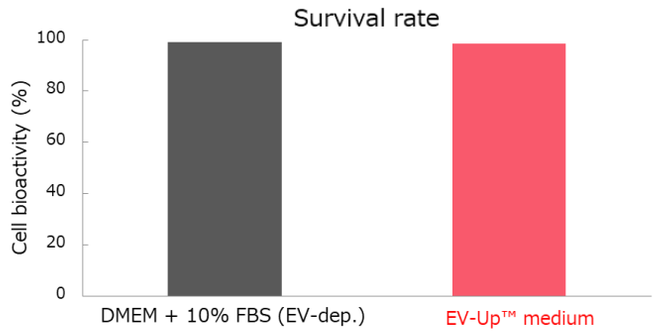
The collected EVs can be isolated by the PS affinity method※2 using MagCapture™ Exosome Isolation Kit PS (Code No. 293-77601).

※2 EVs are captured specifically by phosphatidylserine (PS)-binding proteins in presence of metal ions. The captured EVs can be released afterwards with high purity by adding chelating agents such as EDTA.

Application data

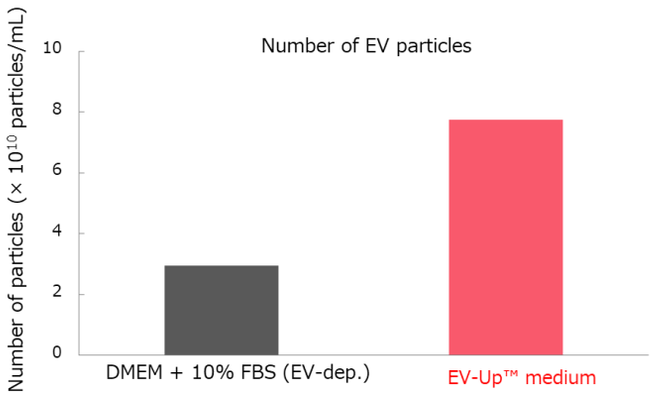
1. Cell Viability

After the expansion of human bone marrow-derived MSCs in serum containing media, the medium was transferred to EV-Up™ medium and cultured for five days to produce EVs. MSCs cultured in EV-Up™ produced EVs without affecting the MSC viability, comparable high survival rate to conventional DMEM + 10% EV depleted FBS was obtained.



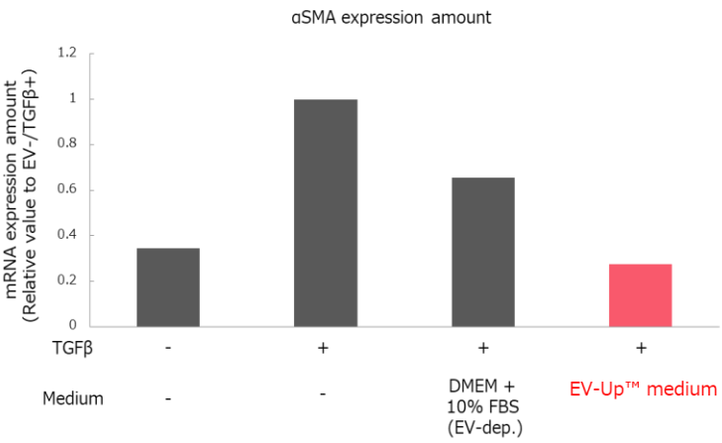
2. Number of EV particles

EVs isolated from various media supernatant by the PS affinity method were analyzed with NTA.
MSCs cultured in EV-Up™ medium released 2.6 times more EVs than MSCs cultured in DMEM + 10% EV-depleted FBS. The particle diameter of the EVs were almost the same.



3. Anti-fibrotic Effect

5×10^7 particles/mL of EVs isolated from various media supernatant by the PS affinity method were added to normal human fetal lung-diploid fibroblasts cells (TIG3) that were stimulated with TGFβ. And the fibrotic marker (αSMA) gene expression was quantified by RT-PCR.
Significantly, MSC EVs produced in EV-Up™ media decreased the gene expression of fibrotic markers such as αSMA.



FUJIFILM Wako Laboratory Chemicals site
https://labchem-wako.fujifilm.com

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