

# EV-UP™ EV PRODUCTION MEDIUM FOR MSC

## CULTURE MEDIUM AND ITS SUPPLEMENT

### INTRODUCTION

EV-Up™ is a culture medium specifically designed for the effective production of exosomes (EVs) from mesenchymal stem cells (MSC). The medium is a set composed of the medium 'EV-Up™ EV Production Basal Medium for MSC, AF' and its supplement 'EV-Up™ MSC EV Production Supplement, AF'. These products are serum-free and animal component-free and applicable to various growth media.

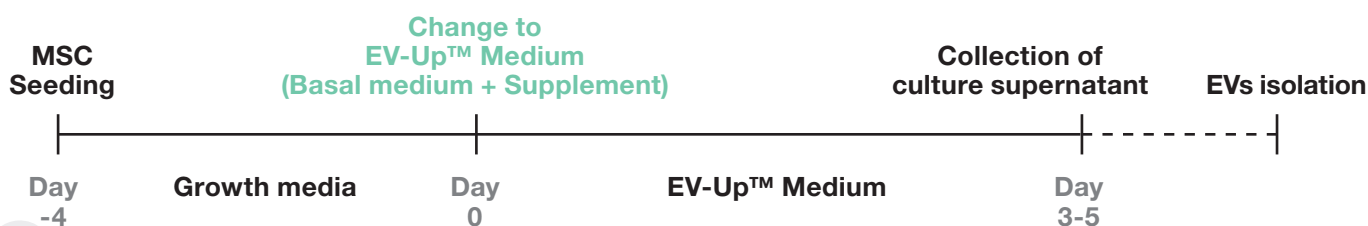
#### Features

- + Better EV yield than serum media
- + Highly reproducible
- + Serum-free and animal-free
- + Maintains high cell viability
- + Produces EVs with high activity
- + Applicable to various growth media

#### Applicable Samples

- + Bone marrow-derived MSC
- + Adipose-derived MSC
- + Umbilical cord-derived MSC

### PROTOCOL



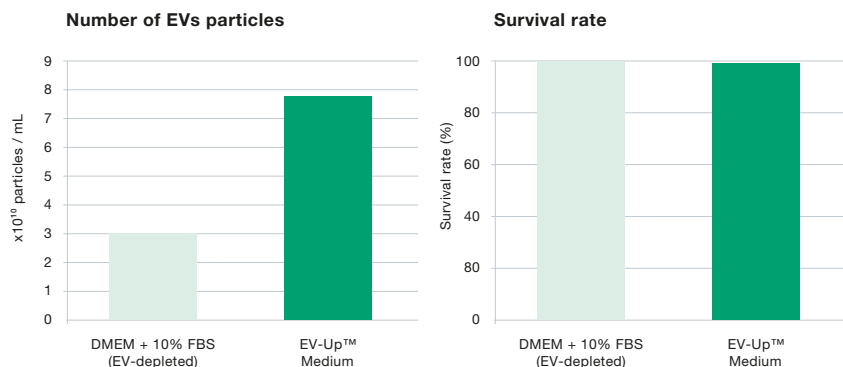
The collected EVs can be isolated by the PS affinity method. By utilising this kit, EVs are captured specifically by phosphatidylserine (PS)-binding proteins in presence of metal ions. The captured EVs can be released afterwards with high purity by adding chelating agents such as EDTA.

### ORDERING INFORMATION

WAKO CODE	PRODUCT NAME	STORAGE CONDITION	PACKAGE SIZE
053-09451	EV-Up™ EV Production Basal Medium for MSC, AF <sup>NEW</sup>	Keep at 2-10 °C	95 mL
298-84001	EV-Up™ MSC EV Production Supplement, AF <sup>NEW</sup>	Keep at -20 °C	for 100 mL

## CELL VIABILITY

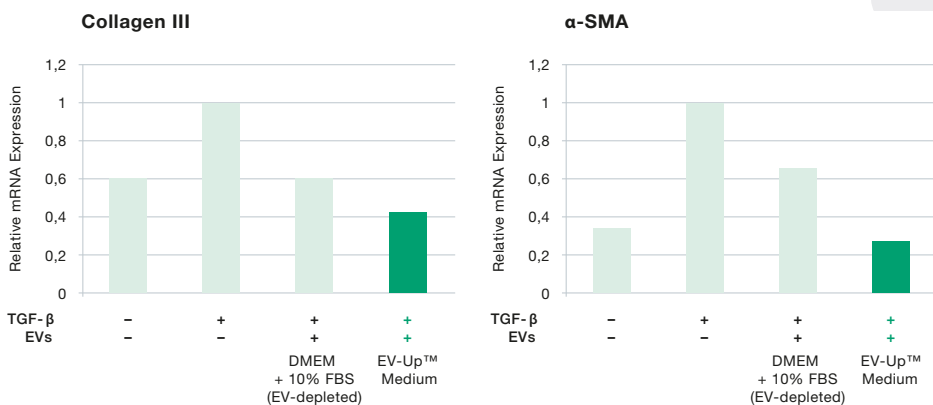
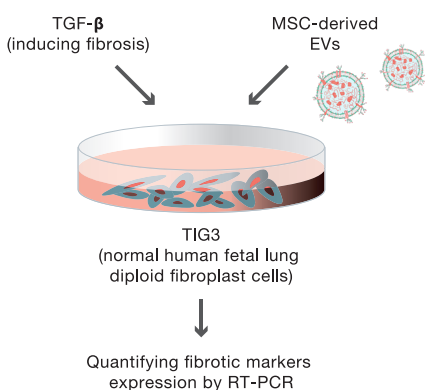
After the expansion of human bone marrow-derived MSC in serum containing media, the media was transferred to EV-Up™ Medium and cultured for five days to produce EVs. MSC cultured in EV-Up™ Medium produced EVs without affecting the MSC viability and comparable high survival rate to conventional DMEM +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



MSC cultured in EV-Up™ Medium released 2.6 times more EVs than in DMEM + 10% EV depleted FBS. EV-Up™ Medium produces EVs with comparable high MSC survival rate.

## ANTI-FIBROTIC EFFECT

5x10<sup>8</sup> 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 TGF-β. The fibrotic marker (collagen III and α-SMA) gene expression was quantified by RT-PCR.



MSC EVs produced in EV-Up™ Medium decreased the gene expression of fibrotic markers Collagen III and αSMA.

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