Exosome-Depleted UltraGRO™-PURE GI

For immune and cancer cell-derived EV production

EVカット製品※を用いた免疫細胞・がん細胞からのEV産生

※ Exosome-Depleted(ED: エクソソーム低減処理済み)製品

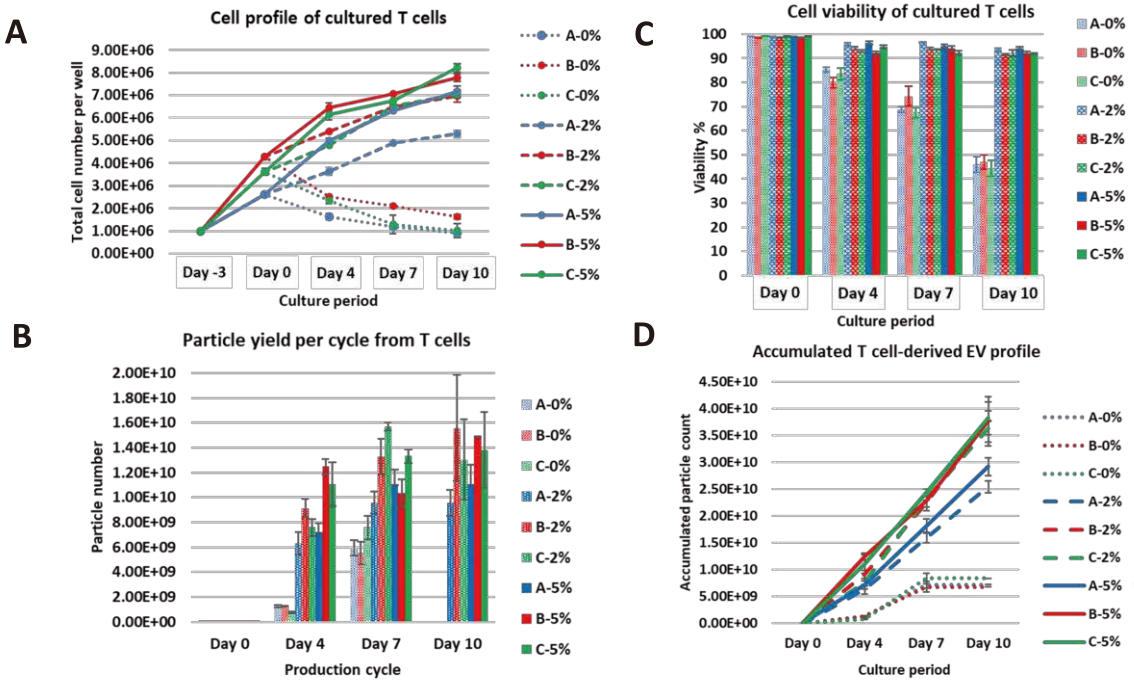
Xeno-Free, Viral Inactivated, Exosome-Depleted for EV Production

AventaCell BioMedical Corp. has developed an exosome depletion process to remove human platelet lysate (hPL)-derived exosomes. Exosome-Depleted UltraGRO™-PURE GI (**ED UG-P GI**), the very first hPL-based supplement for EV collection. It is not able to support human MSCs but also immune cells and cancer cell lines to secret abundant extracellular vesicles (EVs). Moreover, gamma irradiation processing of the product is used as a pathogen reduction treatment (PRT) for viral inactivation, to comply with regulatory guidance for clinical research and development.

Benefits of Exosome-Depleted UltraGRO™-PURE GI

- Xeno-free with **>95%** nanoparticle removal from the hPL supplement
- Minimal hPL nanoparticle contamination
- Target cells cultured with the depleted supplement remain highly viable for sustain EV secretion throughout the culture period
- **GMP** Exosome-Depleted UltraGRO™-PURE GI to produce clinical grade cell-derived EVs
- Gamma irradiation processing is accepted by regulatory agencies as a validated PRT

Excellent in supporting PBMC-derived T cells for long term EV production!



T細胞で
長期間(10日間)
EV産生をサポート

Applied with 2% ED UG-P GI for the comparable EV harvest outcome to the 5% on human T cells!

Fold change	Day 4	Day 7	Day 10
2% vs. 0%	7.29	2.77	4.50
5% vs. 0%	9.86	2.94	4.73

Ave. of 3 donors accumulated EVs

Fig.1: PBMC-derived T from 3 donors were seeded at a cell density of $1x10^6$ cell/ml in a 12-well culture plate. After 3 days, culture medium was replaced with ED UG-P GI supplemented RPMI-1640 medium at 0%, 2%, and 5%. Medium refreshed every 3-4 days. (A) Cell growth, (B) viability, (C) EV yield, and (D) EV accumulated profile were able to be supported and extended with the use of ED UG-P GI.

生細胞率UP

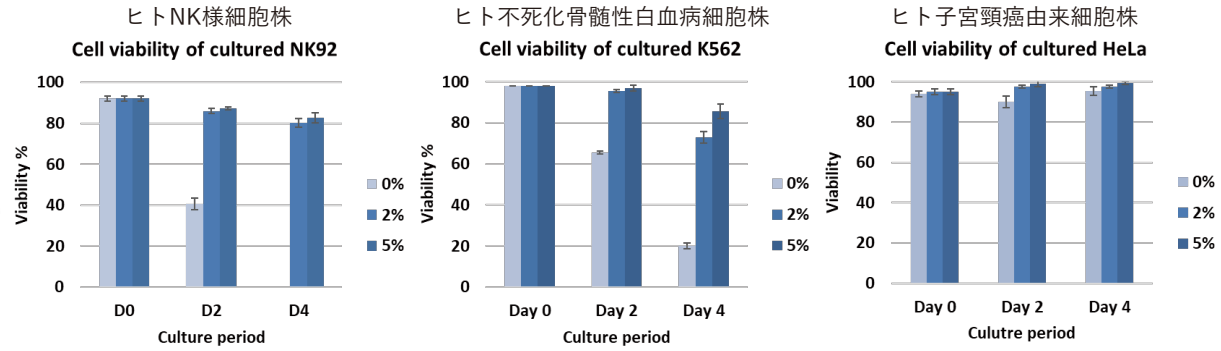
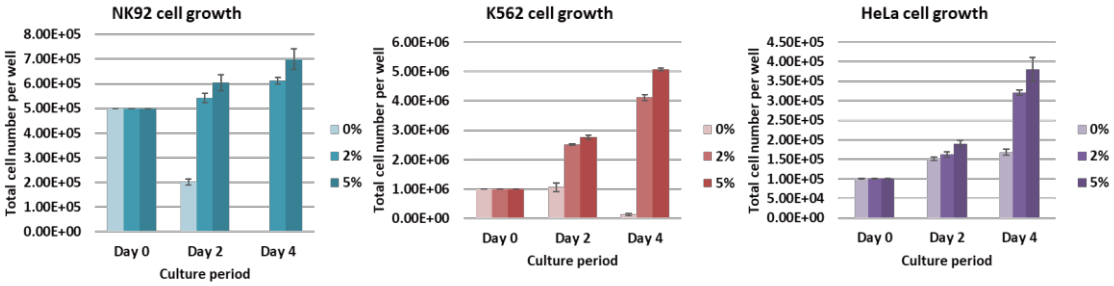


Fig.2: Suspension natural killer cell line NK92, human erythroleukemic cell line K562, and adherent human cervical cancer cell line HeLa cells can be cultured with the ED UG-P GI starting at a minimum concentration of 2%.

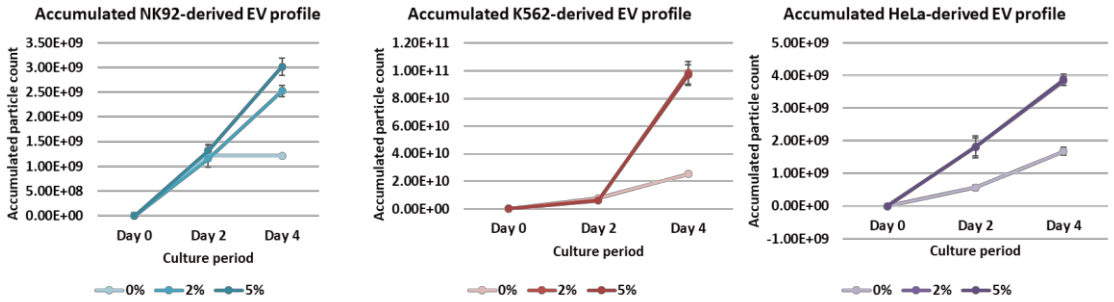
細胞増殖率UP

A



EV産生能UP

B

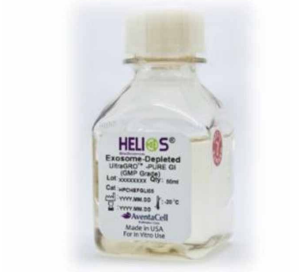


2% ED UG-P GI presents comparable performance to the 5% usage!

	NK92 accu. EVs		K562 accu. EVs		HeLa accu. EVs	
Fold change	Day 2	Day4	Day 2	Day4	Day 2	Day4
2% vs. 0%	0.95	2.08	0.77	3.89	3.22	2.28
5% vs. 0%	1.09	2.49	0.82	3.82	3.20	2.31

Fig.3: In the presence of ED UG-P GI, it could support NK92, K562, and HeLa cells on continuous (A) cell growth, and each (B) EV accumulated secretion profile was significantly enhanced with the 2% or 5% supplemented ED UG-P GI.

Billions of cell-derived EVs can be easily acquired Ordering today to start your exosome production!



Ordering Information

Product Number	Product	Bottle Size (mL)
HPCHEFRLI05	Exosome-Depleted UltraGRO™-PURE GI	50
HPCHEFRLI50		500
HPCHEFGLI05	Exosome-Depleted UltraGRO™-PURE GI (GMP grade)	50
HPCHEFGLI50		500

AventaCell BioMedical Corp

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