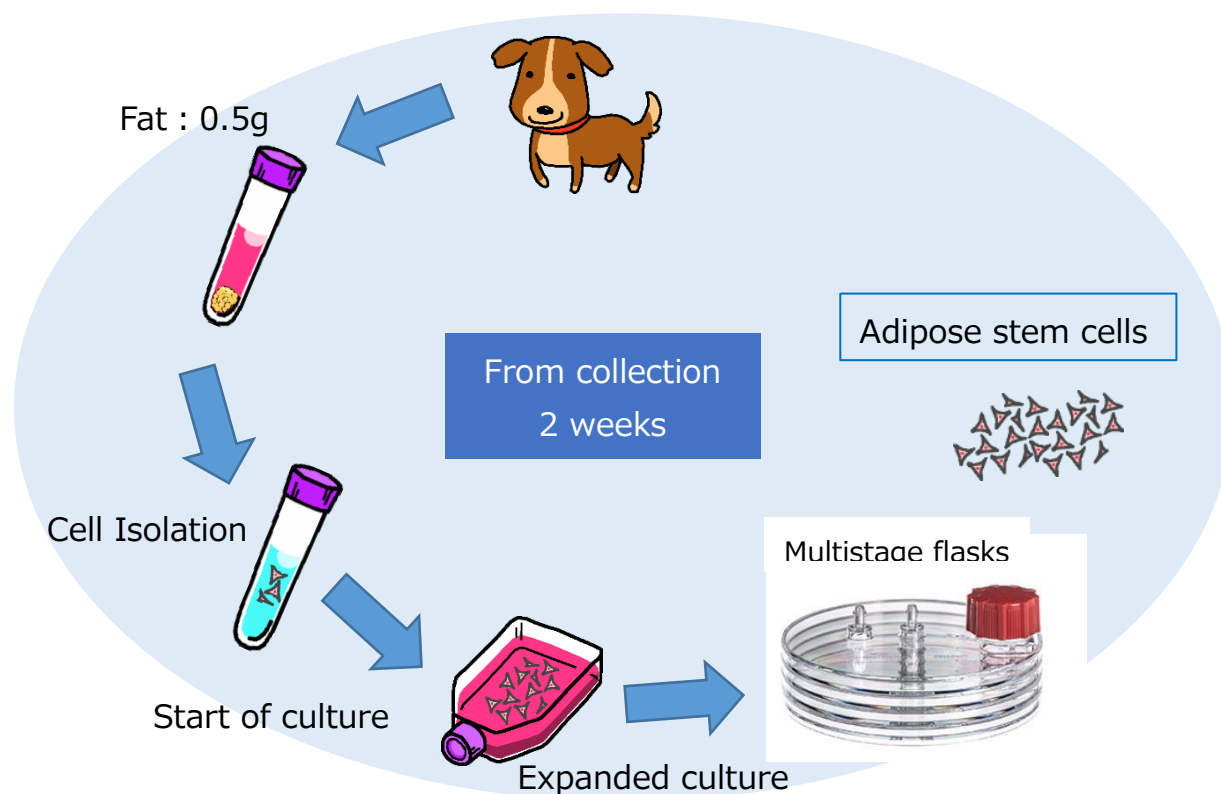




## Culture kit for canine adipose stem cells (ADSCs)

ADSC Expansion Culture Kit is a kit for conveniently culturing ADSCs from adherent cells isolated from 0.5 g of fat.



### Forte

#### Possible in a simple clean room

- No special equipment or strict environment required

#### All-in-one

- All aspects of culture can be done with just the kit

#### Disposable

- No contamination by reuse



Can be prepared in-house at a general hospital

Minimally invasive with only an intravenous infusion

Leading the way, unparalleled in the U.S. and abroad

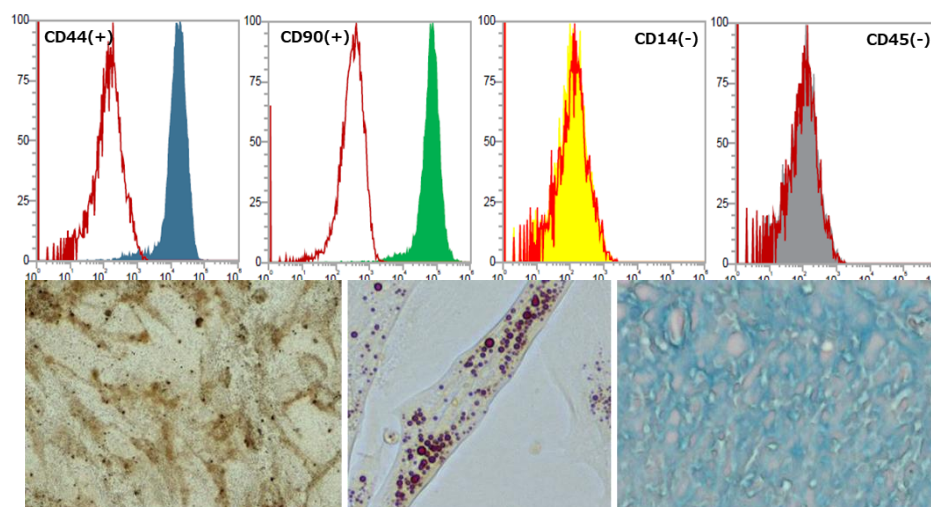
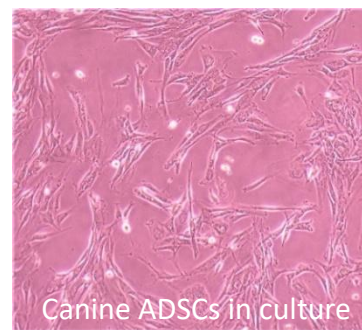
## Composition

This all-in-one culture kit includes everything needed for culture, including flasks, culture media, and pipettes.

## Application Examples

Cultured cells exhibited characteristics of ADSC morphology and colony formation was confirmed by CFU-F assay. Surface markers expressed were confirmed by flow cytometry analysis. In addition, tri-differentiation potential (osteogenesis, chondrogenesis, and adipogenesis) was confirmed by staining for each differentiation potential.

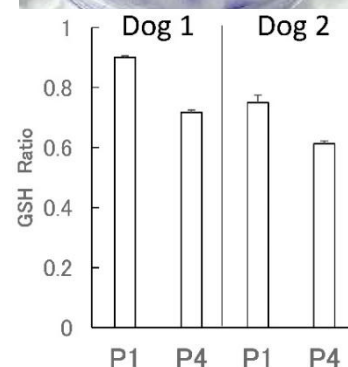
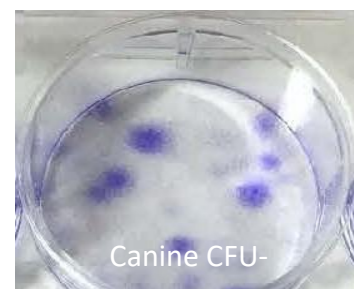
0.5 g of fat was collected from a healthy dog. The cells were cultured for 2 weeks. The average number of cells recovered was  $2 \times 10^7$ . Survival rate is over 98%.



Von Kossa staining of osteodifferentiated ADSCs

Oil red O staining of adipose-differentiated ADSCs

Alcian blue staining of chondrogenically differentiated ADSCs



### Quality of ADSC

Quality was evaluated by quantification of glutathione (GSH), the most abundant non-protein thiol that functions as an antioxidant and redox regulator; P1 showed higher GSH values than P4, indicating that ADSCs with fewer passages are higher in quality.

## Literature and Presentations

- 1) Tohya S, Mitani K, Ito Y, Inaba T, Okada K. (J-ARM Inc.), QOL evaluation by owners in canine cancer immunotherapy and fat stem cell therapy, 160th Annual Meeting of the Japanese Society of Veterinary Science 2017.
- 2) Ito Y (J-ARM Inc), On Cell Culture (Culture Techniques for Activated Lymphocytes and Dendritic Cells), The 160th Annual Meeting of the Japanese Veterinary Medical Association 2017.
- 3) Mitani K<sup>1</sup>, Ito Y<sup>1</sup>, Takene Y<sup>1</sup>, Jeong EM<sup>2</sup>, Kang HS<sup>2</sup>, Kim IG<sup>3</sup>, Inaba T<sup>1,4</sup>, Hatoya S<sup>4</sup>, Sugiura K<sup>4</sup> (<sup>1</sup> J-ARM. <sup>2</sup>Cell2in, Korea. <sup>3</sup> Seoul National University, Korea. <sup>4</sup> Osaka Prefecture University), TISSUE ENGINEERING & REGENERATIVE MEDECINE Exposition 2018.
- 4) Mitani K<sup>1</sup>, Ito Y<sup>1</sup>, Takene Y<sup>1</sup>, Shin J<sup>2</sup>, Jeong EM<sup>3</sup>, Kang HS<sup>2</sup>, Kim IG<sup>3</sup>, Inaba T<sup>1,4</sup>, Hatoya S<sup>4</sup>, Sugiura K<sup>4</sup> (<sup>1</sup> J-ARM Corporation, <sup>2</sup> Cell2in (Korea), <sup>3</sup> Seoul National University (Korea), <sup>4</sup> Osaka Prefecture University), Dog and cat. Mesenchymal Stem Cell Isolation and Quality Assessment by Monitoring Glutathione Content, Japanese Society for Veterinary Regenerative Medicine 14th Annual Meeting 2019.

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