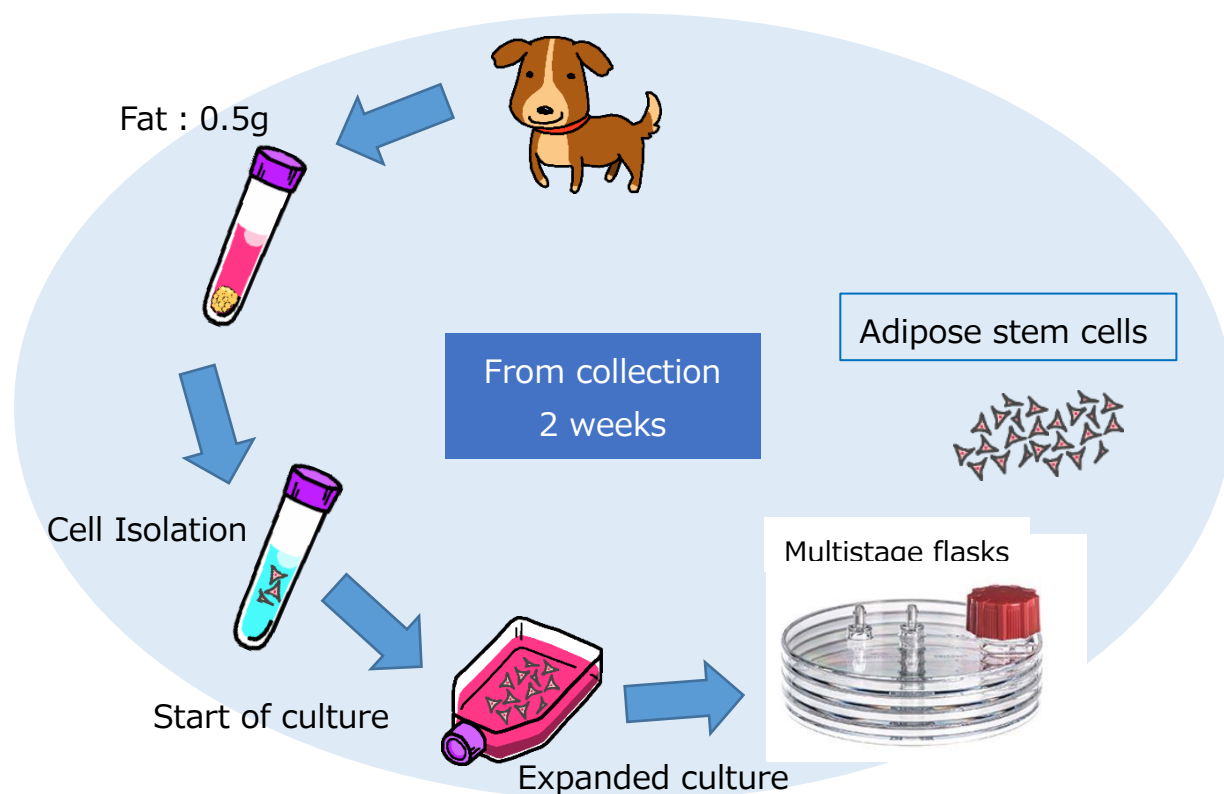




Culture kit for canine adipose stem cells (ADSCs)

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



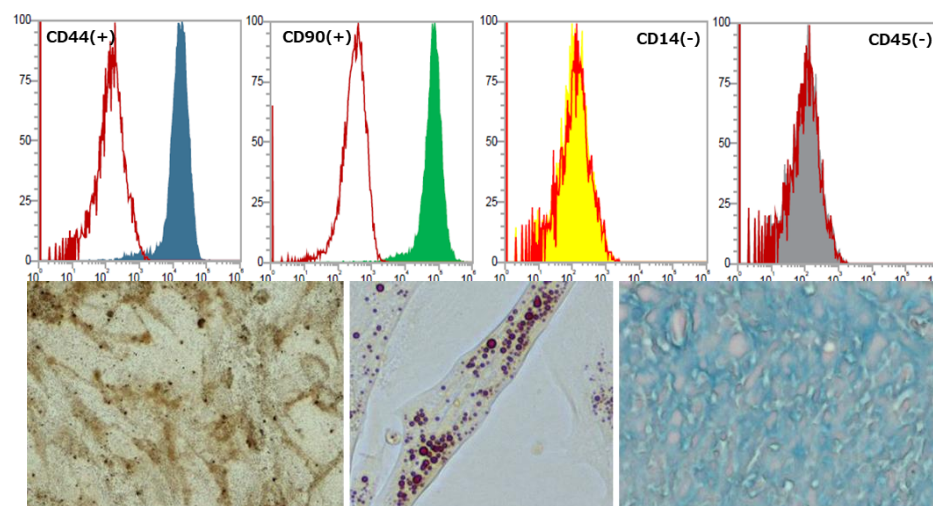
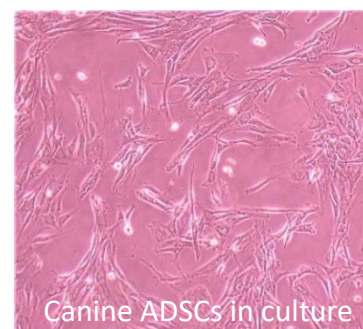
Composition

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.

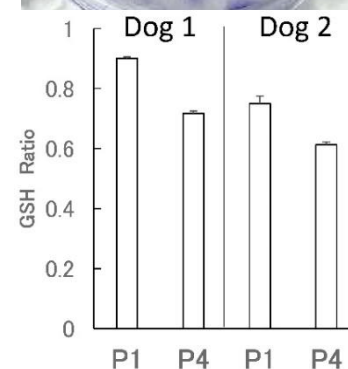
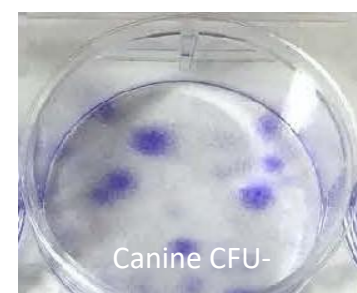
0.5 g of fat was collected from a healthy dog. The cells were cultured for 2 weeks. The average number of cells recovered was 2×10^7 . Survival rate is over 98%.



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 K¹, Ito Y¹, Takene Y¹, Jeong EM², Kang HS², Kim IG³, Inaba T^{1,4}, Hatoya S⁴, Sugiura K⁴ (¹ J-ARM. ²Cell2in, Korea. ³ Seoul National University, Korea. ⁴ Osaka Prefecture University), TISSUE ENGINEERING & REGENERATIVE MEDECINE Exposition 2018.
- 4) Mitani K¹, Ito Y¹, Takene Y¹, Shin J², Jeong EM³, Kang HS², Kim IG³, Inaba T^{1,4}, Hatoya S⁴, Sugiura K⁴ (¹ J-ARM Corporation, ² Cell2in (Korea), ³ Seoul National University (Korea), ⁴ 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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