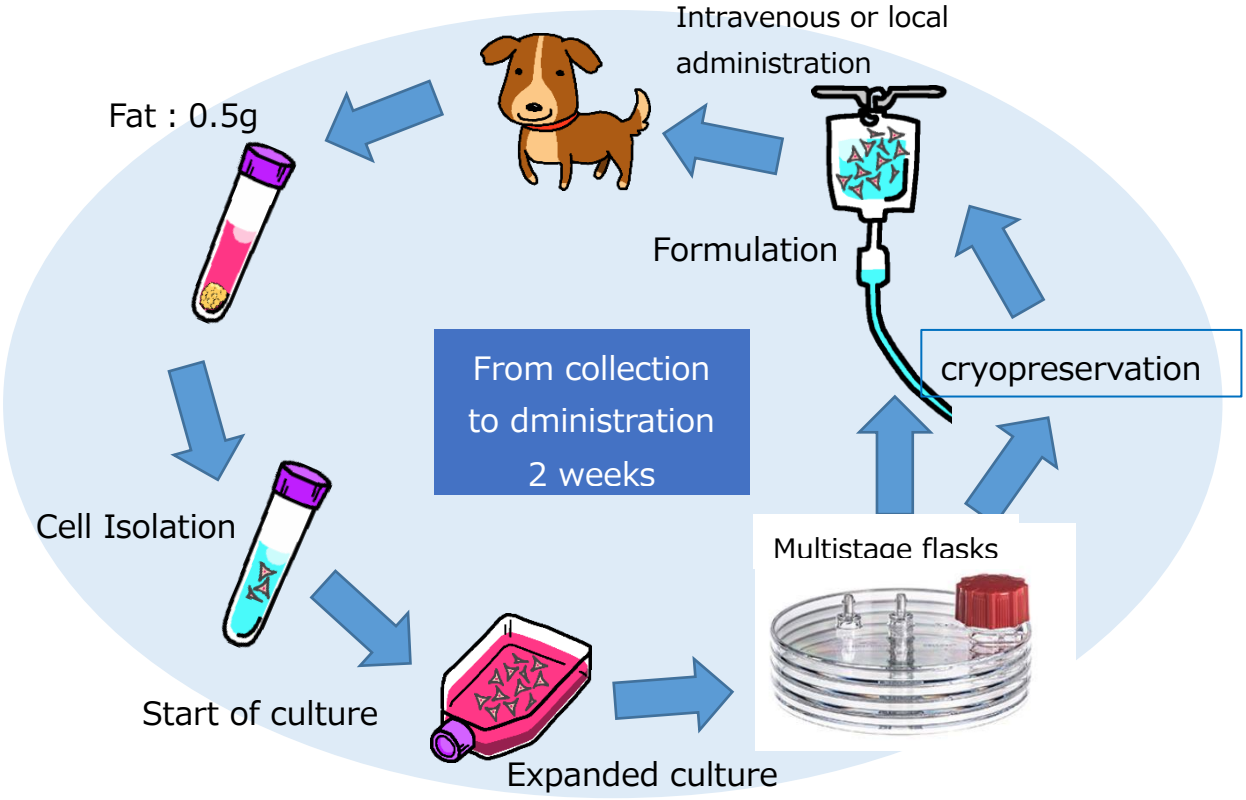
Ver.02

J-ARM
For Regenerative Medicine

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

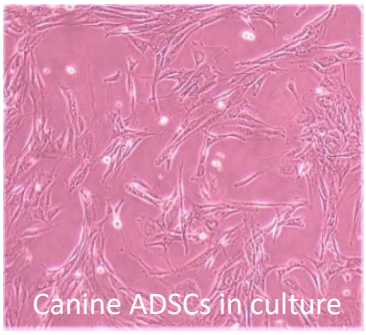
Composition

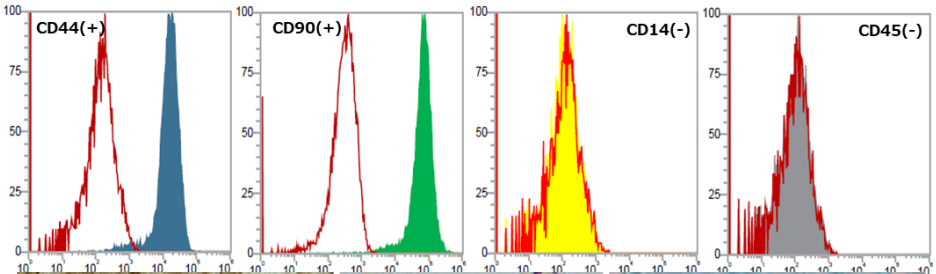
This all-in-one culture kit includes everything needed for a single treatment from culture to administration, including flasks, culture media, and pipettes.

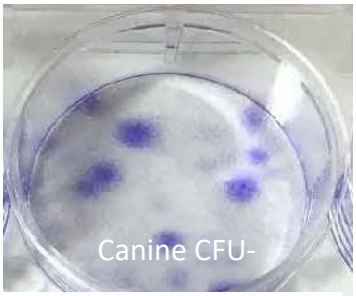
Application Examples

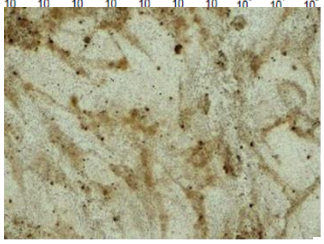
Cultured cells exhibited characteristics of ADSC morphology and colony formation was confirmed by CFU-F assay. Surface markers expressed were confirmed by flow cytometry analysis. In addition, tri-differentiation potential (osteogenesis, chondrogenesis, and adipogenesis) was confirmed by staining for 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 2×107.
Survival rate is over 98%.

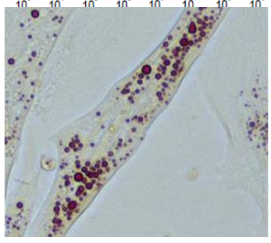




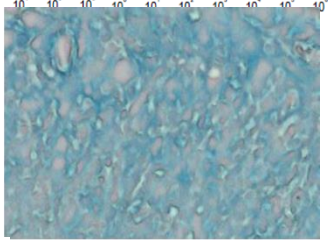




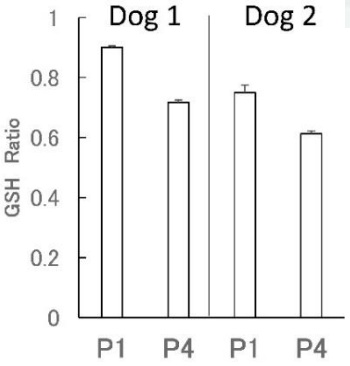
Von Kossa staining of osteodifferentiated ADSCs



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[1], Ito Y[1], Takene Y[1], Jeong EM[2], Kang HS[2], Kim IG[3], Inaba T[1,4], Hatoya S[4], Sugiura K[4] ([1] J-ARM. [2]Cell2in, Korea. [3] Seoul National University, Korea. [4] Osaka Prefecture University), TISSUE ENGINEERING & REGENERATIVE MEDECINE Exposition 2018.
4) Mitani K[1], Ito Y[1], Takene Y[1], Shin J[2], Jeong EM[3], Kang HS[2], Kim IG[3], Inaba T[1,4], Hatoya S[4,] Sugiura K[4] ([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.

J-ARM Corporation
5-9-27-201 Abenosuji, Abeno-ku, Osaka-shi, Osaka
TEL&FAX : 06-7890-5959 order@j-arm.com