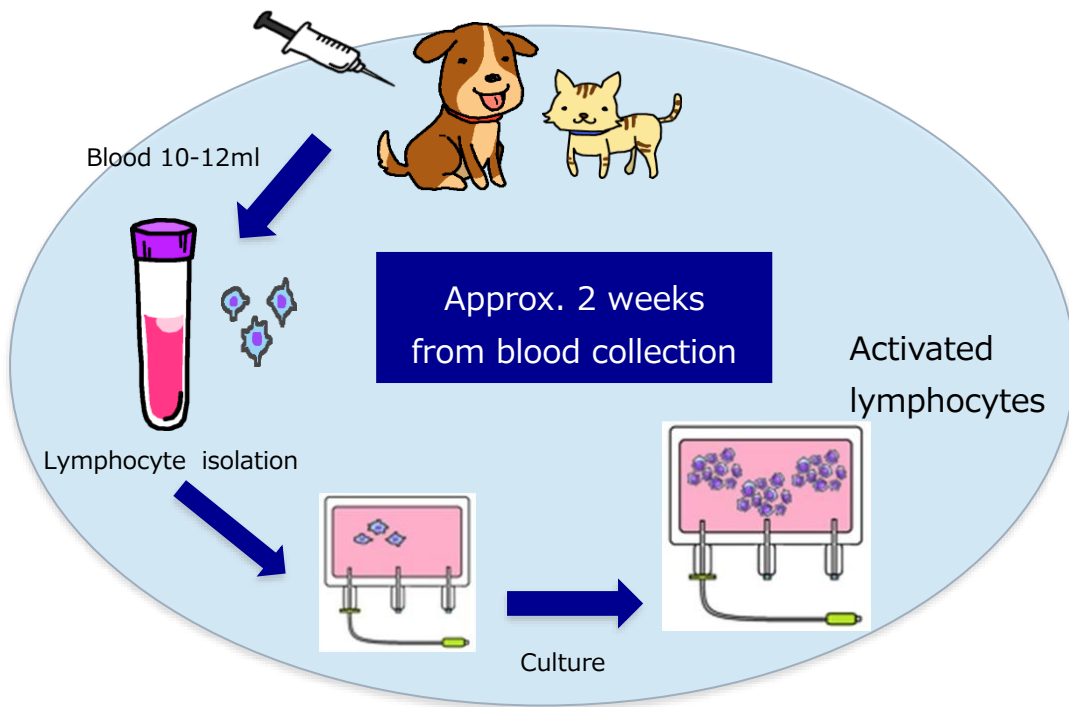


Culture kit for activated lymphocytes (CAT)

The Activated Lymphocyte Culture Kit is a kit for convenient culture of activated lymphocytes from canine and feline peripheral blood.



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 necessary for culture, including culture bag, culture medium, and pipettes.

Application Examples

Using our activated lymphocyte culture kit, we cultured canine peripheral blood. In the obtained cultured cells, gene expression levels of IFN- γ , which enhances the ability to attack cancer cells, and proenkephalin, an opioid that exerts analgesic effects, increased 3.5- and 2.7-fold, respectively, compared to those before culture (Figure 1). In addition, when these cultured cells were cultured together with cancer cells, most of the cancer cells were killed (Figure 2). These results indicate that opioid production from the proliferating cells as well as IFN- γ production increased and their ability to kill cancer cells increased.

Fig. 1. Gene expression levels in activated lymphocytes

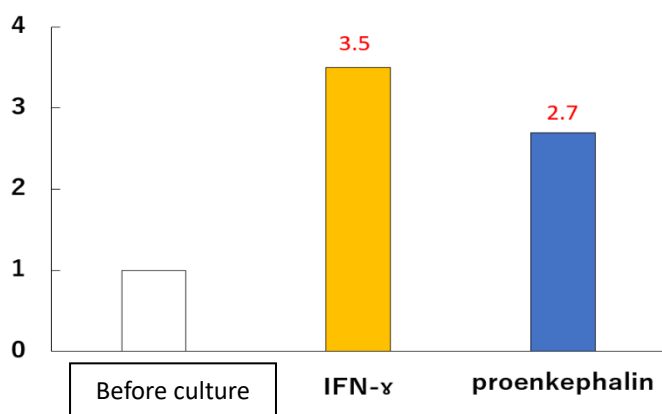
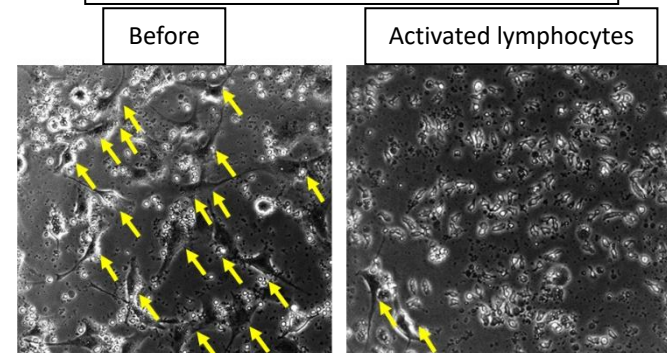


Fig. 2. Tumor-killing activity for cancer cells



(Left: Spindle-shaped cancer cells (yellow arrows) proliferate; Right: Cancer cells die)

Literature and Presentations

- 1) Mitani K, Ito Y, Takene Y, Hatoya S, Sugiura K, Inaba T. Quality of life-improving effect of autologous ex vivo expanded cytotoxic and opioid-producing lymphocytes for dogs with cancers. Vet. Immunol. Immunopathol. 2021.
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