

## Vaccine for *Caseous Lymphadenitis*

### TECHNOLOGY DESCRIPTION

This technology is a vaccine for prevention of disease *Caseous Lymphadenitis* in small ruminants.

### TECHNOLOGY FEATURES

This technology was developed with CLA-Formalin-Killed vaccine, where it gives significantly high rate of protection in goats mainly when applied 0.5% concentration. It was also prepared by using oil-in-water emulsion adjuvant. This vaccine is very effective and shows high immune response when applied to small ruminants. It also shows negative histopathological changes in the small ruminant.

### ADVANTAGES

- Save cost in Caseous Lymphadenitis treatments
- Effective
- Shows high immune responses and negative histopathological changes

### INDUSTRY OVERVIEW

#### Prospect Industry: Small ruminant industry

Caseous lymphadenitis (CL) is a contagious, infectious and chronic disease of small ruminants such as goats and sheep. The bacteria will generally localize in a sub-cutaneous lymph node and form an abscess that the animal walls off from the rest of its body. Some economic losses due to CL are caused when breeding stock is no longer marketable, when carcasses are condemned due to internal abscesses, when animals die, or when abscesses devalue animal hides. Sheep and goats can be infected at any time in their lifetime, and the morbidity rate in herd can reach as high as 15-50%. There are about 1.6% small ruminants infected by this disease. CL is found in most parts of the world where small ruminants are farmed, including Europe, Australasia, North and South America, Africa, and the Middle East.



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