

PULMO-GUARD™ MpB Vaccine Challenge

Key Points

In a Pilot Challenge Study Experimental PULMO-GUARD™ MpB Vaccine Demonstrated Good Results

- IgG conversion and titer levels were good.
- Lung lesion protection was good.

Study Design

Study animals	30 calves seronegative to <i>Mycoplasma bovis</i>
Procedure	All vaccinates received two doses of PULMO-GUARD MpB three weeks apart 14 days following second vaccination, 6 calves, 3 from group vaccinated Sub-Q, 3 from non-vaccinated control group were challenged with virulent <i>Mycoplasma bovis</i>

Treatment Groups

Group 1	10 calves vaccinated with PULMO-GUARD MpB Sub-Q
Group 2	10 calves vaccinated with PULMO-GUARD MpB IM
Group 3	Non-vaccinated controls

Data Collection

IgG₂ serum titers and percent lung lesions were collected from each test animal.

Serology Results

All Calves

	Average IgG ₂ Serum Titer
Group 1	1:1600
Group 2	1:1600
Group 3 controls	0

**Serology Results
Challenged Calves**

	IgG₂ Seroconversion	Lung Score %
PULMO-GUARD MpB Sub-Q Calf 1	+	0.5
PULMO-GUARD MpB Sub-Q Calf 2	+	4.4
PULMO-GUARD MpB Sub-Q Calf 3	+	1.1
Non-vaccinated control	-	36.4
Non-vaccinated control	-	5
Non-vaccinated control	-	17.55

The Bottom Line

- **PULMO-GUARD MpB** Bacterin appears to show increased protection against lung lesions over non-vaccinated controls.
- **PULMO-GUARD MpB** Bacterin increased serum titer to IgG₂ over non-vaccinated controls.