



XXIV SIMPOSIO
2019

PAMPLONA

Evaluación de un nuevo ELISA para el diagnóstico de la tuberculosis caprina en muestras de leche



Javier Ortega Martín

Centro de Vigilancia Sanitaria Veterinaria VISAVET

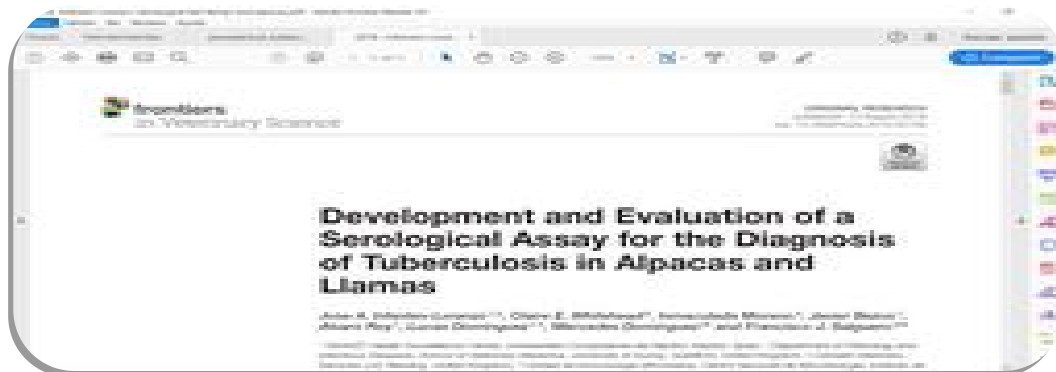
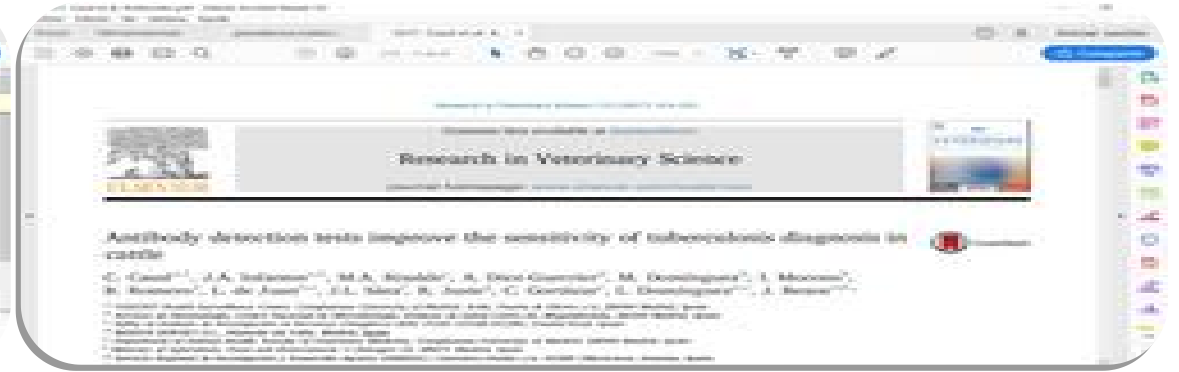
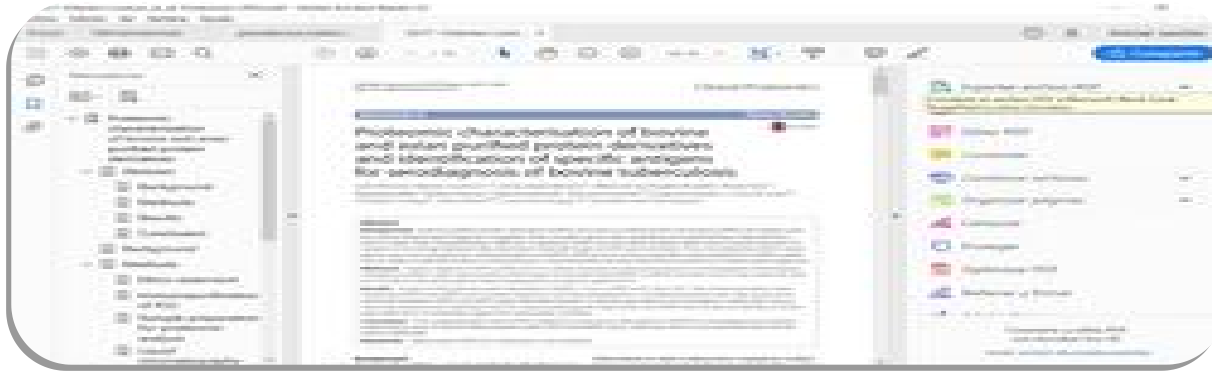
Departamento de Sanidad Animal, Facultad de Veterinaria UCM

Importancia de la serología



XXIV SIMPOSIO
2019

PAMPLONA



Specificity of serological test for detection of tuberculosis in cattle, goats, sheep and pigs under different epidemiological situations

J. A. Infantes-Lorenzo^{1,2}, I. Moreno³, A. Roy⁴, M. A. Risalde^{5,7}, A. Balseiro⁶, L. de Juan^{1,2}, B. Romero¹, J. Bezos^{1,2}, E. Puentes⁴, J. Åkerstedt⁸, G. T. Tessema⁸, C. Gortázar^{5*}, L. Domínguez^{1,2} and M. Domínguez³

ELISA p22 en leche

- No inv
- Muest
- Tanqu
- Conse

Evaluation of a Commercial Enzyme-Linked Immunosorbent Assay for the Diagnosis of Bovine Tuberculosis from Milk Samples from Dairy Cows

Bryce M. Buddle,^a Tania Wilson,^a Dongwen Luo,^b Hinrich Voges,^c Richard Linscott,^d Edmond Martel,^d John C. Lawrence,^d Mark A. Neill^e

AgResearch, Hopkirk Research Institute, Palmerston North, New Zealand^a; AgResearch, Grasslands Research Centre, Palmerston North, New Zealand^b; Livestock Improvement Corporation, Hamilton, New Zealand^c; IDEXX Laboratories, Westbrook, Maine, USA^d; TBfree New Zealand, Christchurch, New Zealand^e

Serological Analysis of Tuberculosis in Goats by Use of the Enferplex Caprine TB Multiplex Test

Amanda O'Brien,^a Clare Whelan,^a John B. Clarke,^a Alastair Hayton,^{b,c} Neil J. Watt,^d Gordon D. Harkiss^d

Enfer Scientific, Naas, Kildare, Ireland^a; Synergy Farm Health, Evershot, Dorset, United Kingdom^b; RAFT Solutions Ltd, Ripon, United Kingdom^c; MV Diagnostics Ltd, BioQuarter, Edinburgh, United Kingdom^d



Estudio piloto



Ambos vacunados frente paratuberculosis (Gudair)

Table 1. Apparent prevalence and agreement (kappa value) between the different diagnostic techniques in TB-infected caprine herds 1 (low prevalence) and 2 (high prevalence).

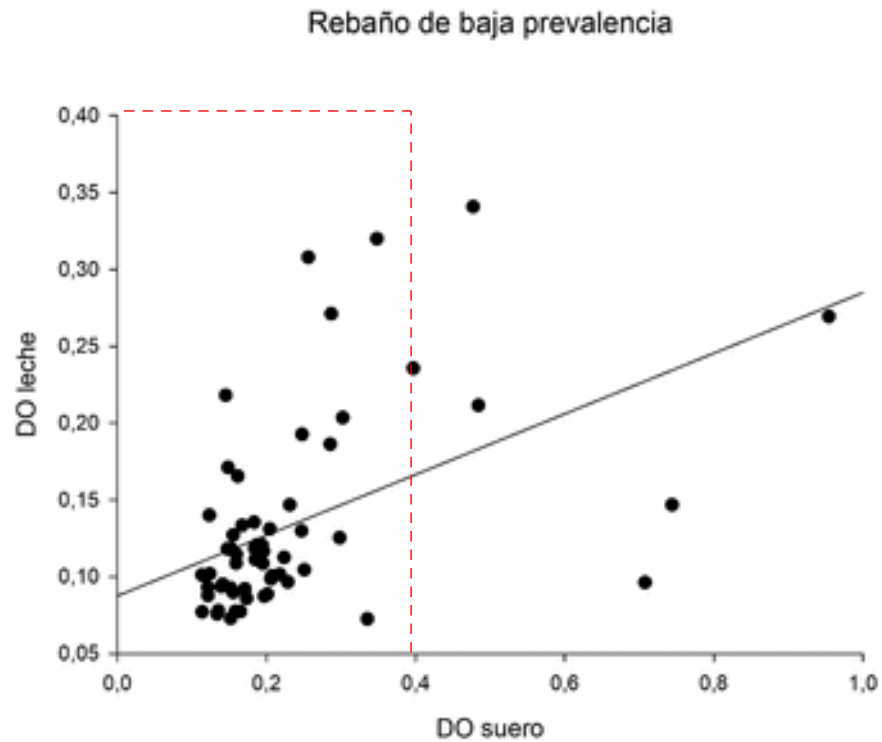
Herd 1 (n = 62)	Test	Apparent prevalence	CIT	IGRA	P22 ELISA serum	P22 ELISA milk	MAP ELISA (IDEXX)
	SIT	5/62, 8% (3.5-17.5)	0.551	0.468	0.347	0.315	-0.032*
	CIT	2/62, 3.2% (0.9-11)	-	0.376	-0.048	-0.022	-0.061*
	IGRA	3/62, 4.8% (1.7-13.3)	-	-	0.202	-0.025	-0.089*
	P22 ELISA serum	5/62, 8.1% (3.5-17.5)	-	-	-	-0.028	0.077*
	P22 ELISA milk	1/62, 1.6% (0.3-8.6)	-	-	-	-	-0.031*
	MAP ELISA (IDEXX)	16/62, 25.8% (16.6-37.9)	-	-	-	-	-
Herd 2 (n = 52)	SIT	30/52, 57.7% (44.2-70.1)	0.594*	0.455	0.016*	-0.006	-0.064
	CIT	19/52, 36.5% (24.8-50.1)	-	0.359*	0.019*	0.093*	-0.060
	IGRA	28/52, 53.9% (40.5-66.6)	-	-	0.150*	0.117*	-0.071
	P22 ELISA serum	43/52, 82.7% (70.3-90.6)	-	-	-	0.822	0.011*
	P22 ELISA milk	40/52, 76.9% (63.9-86.3)	-	-	-	-	0.040*
	MAP ELISA (IDEXX)	24/52 46.2% (33.3-59.5)	-	-	-	-	-

SIT, single intradermal tuberculin test; CIT, single comparative intradermal tuberculin test; IGRA, interferon-gamma release assay

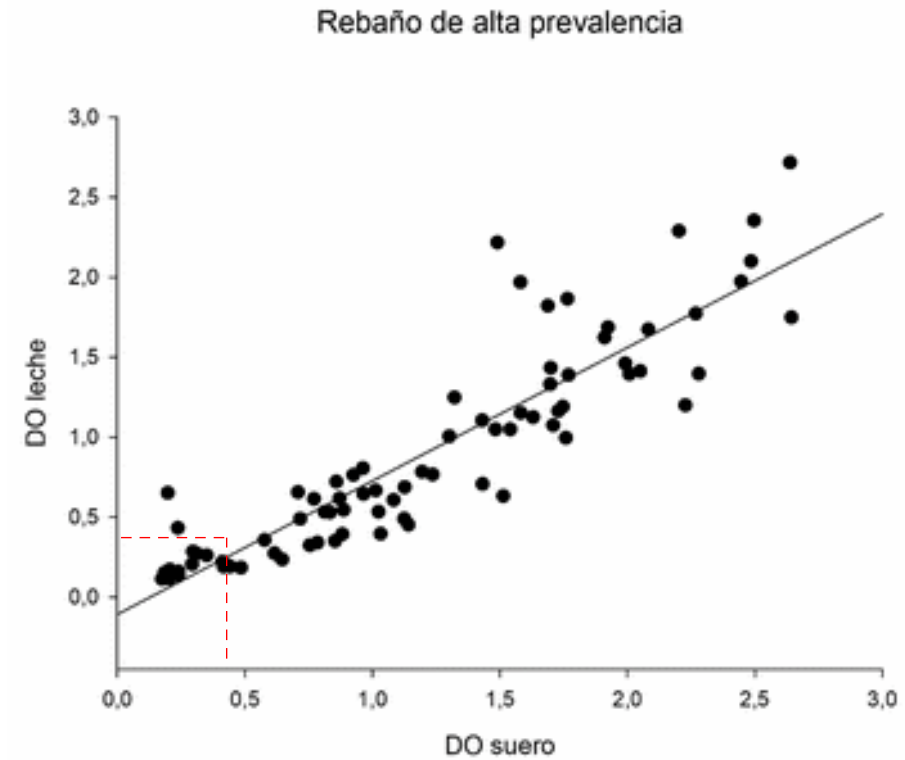
*Significant differences among the proportion of positive and negative animals (McNemar test $p < 0.05$).

Kappa agreement interpretation: < 0.00 poor, $0.00-0.20$ slight, $0.21-0.40$ fair, $0.41-0.60$ moderate, $0.61-0.80$ substantial, and $0.81-1.00$ almost perfect agreement.

Correlación moderada $\rho = 0.458$



Correlación **MUY** elevada $\rho = 0.915$ --- ≈ Punto de corte



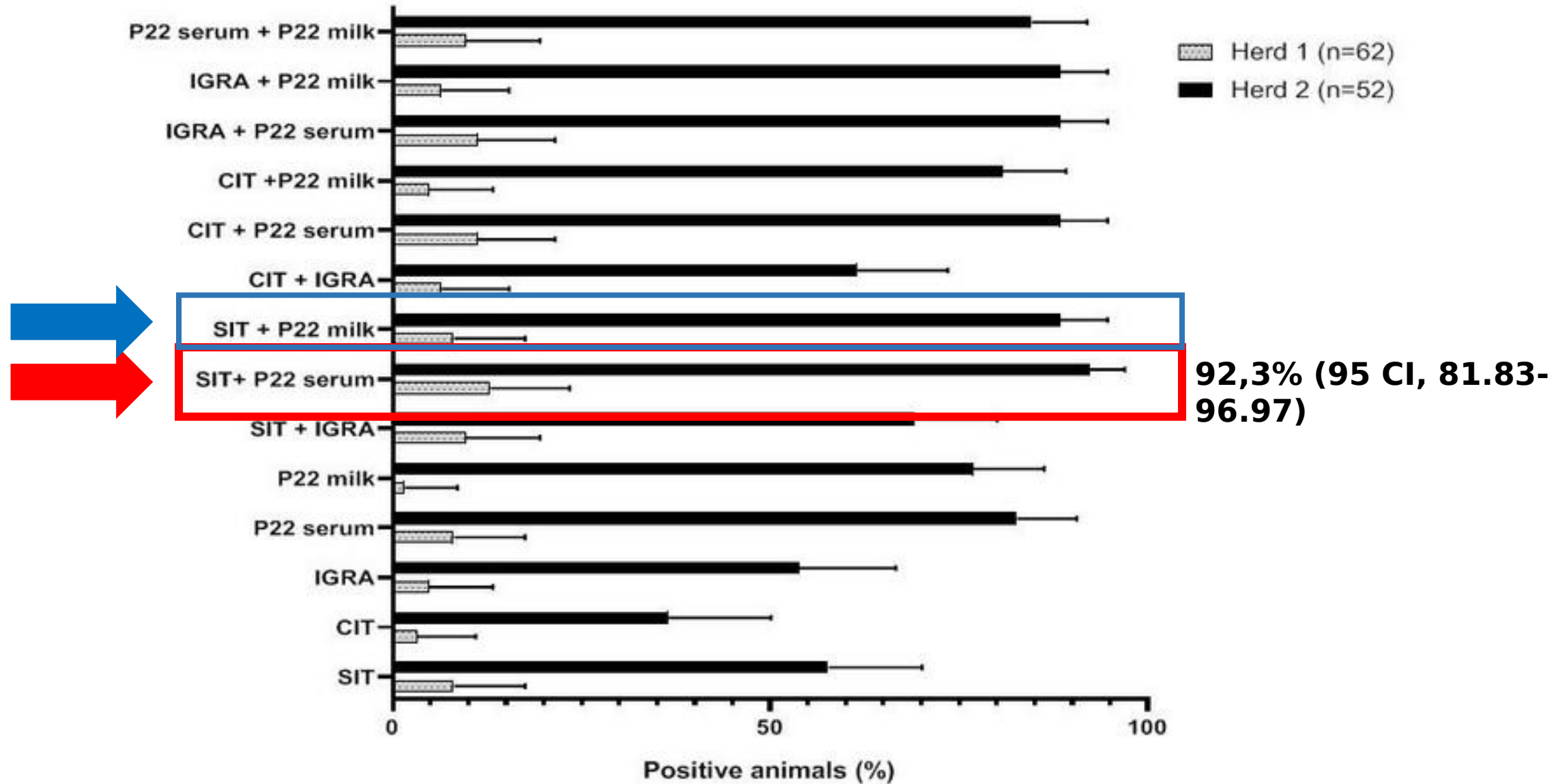


Table 2. Number of positive reactors, proportion of test positive animals among the infected ones (T+/I+) and Wilson's 95% confidence intervals using the different diagnostic test and applying parallel interpretation.

	N	T+/I+ (%) ^d	95% IC
SIT ^a test	12	57.14	36.55-75.53
CIT ^b test	10	47.62	28.34-67.63
IGRA ^c	8	38.10	20.75-59.12
P22 serum	14	66.67	45.37-82.81
P22 milk	13	61.90	40.88-79.25
SIT + IGRA	13	61.90	40.88-79.25
SIT + P22 serum	16	76.19	54.91-89.37
SIT + P22 milk	14	66.67	45.37-82.81
CIT + IGRA	11	52.38	32.37-71.66
CIT + P22 serum	15	71.53	50.04-86.19
CIT + P22 milk	13	61.90	40.88-79.25
IGRA + P22 serum	14	66.67	45.37-82.81
IGRA + P22 milk	13	61.90	40.88-79.25
P22 serum + P22 milk	15	71.53	50.04-86.19

^a SIT: single intradermal tuberculin test; ^b CIT: comparative intradermal tuberculin test; ^c IGRA: Interferon-gamma release assay; ^d T+/I+: proportion of test positive animals among the infected ones. Goats showing TB compatible lesions and/or culture positive were considered as infected (n=21)

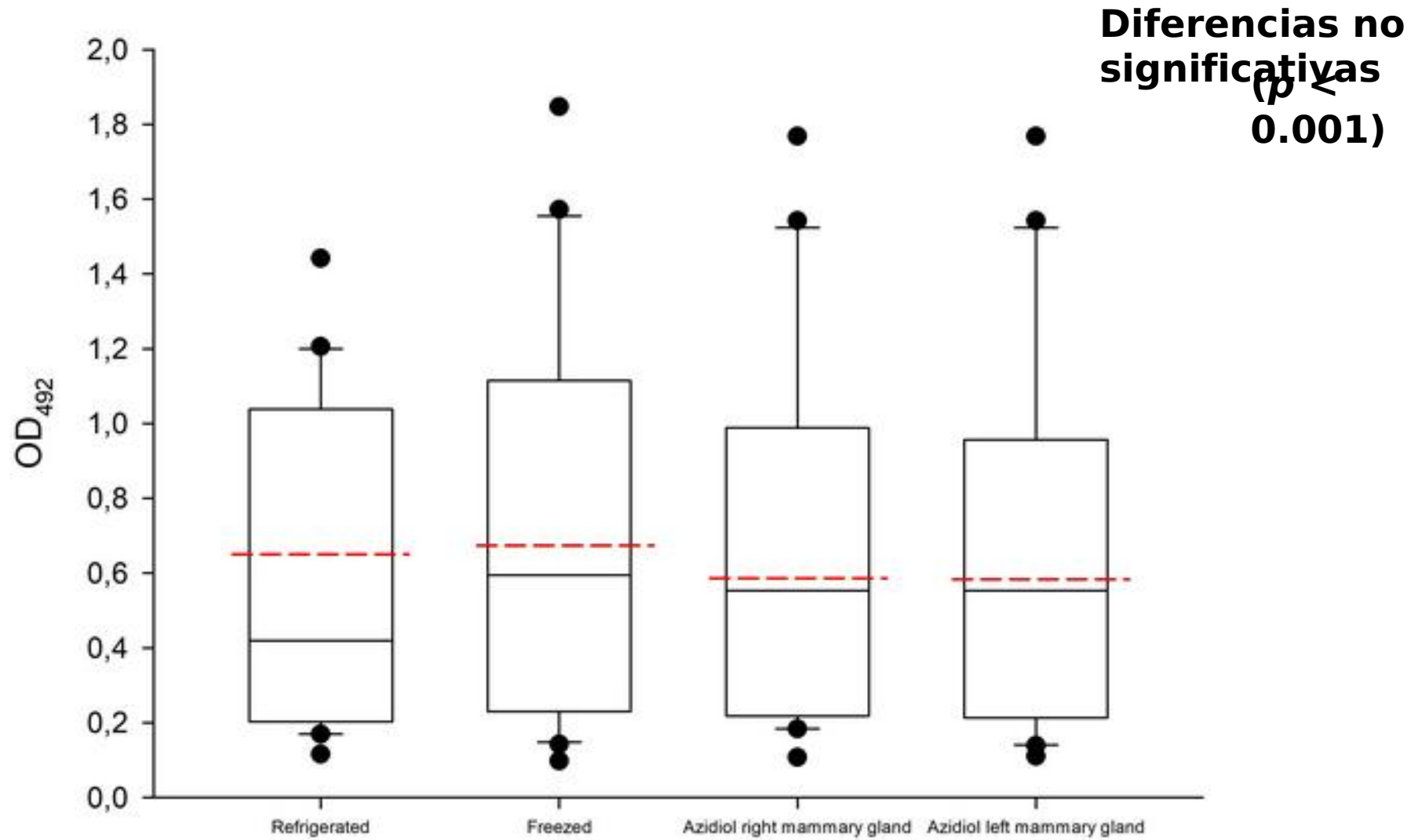
Se sacrificaron 21 animales aleatoriamente

Todos con lesiones compatibles con TB en uno o más linfonodos y/o pulmón

M.bovis



P22 ELISA milk



Conclusiones

1. El uso del ELISA p22 en muestras de suero y leche presentó una sensibilidad similar en el ganado caprino.
2. Los diferentes métodos de conservación utilizados en leche no afectaron a los resultados del ELISA.
3. La detección de Ac específicos en leche constituye una posible técnica complementaria para el diagnóstico de la TB caprina.

¡MUCHAS GRACIAS!



UNIVERSIDAD
COMPLUTENSE
MADRID



UNIVERSIDAD
COMPLUTENSE
MADRID