

MILK PREG28 EASY, EARLY & ACCURATE.

(MILK PREGNANCY IN BOVINE)

U UNIVERSAL
B R BIOMEDICAL
L RESEARCH
LABORATORY

UNIVERSAL
BIOPHARMA
Research Institute, Inc.

Key Notes:

- Convenient**
Eliminates additional time and effort to sort, restrain and sample cows and heifers. Testing can be done on fresh, frozen or preserved milk sample.
 - Improved Early Detection**
Accurately diagnoses pregnancy early as **28 days post-breeding** and **60 days post-calving**.
 - Accuracy**
Detects pregnancy with 98.8% sensitivity and 97.4% specificity. Milk testing is highly comparable to serum testing (overall agreement = 98.4%[#]).
 - Cost-effective and Easier**
Compared to traditional palpation and ultrasound method. No special training or blood draw involved.
 - Flexible**
Schedule testing when it is right for you. Sampling can be done frequently to decrease open days.
 - Fast Results**
Results can be available by phone, fax or email within 24 hours of sample arriving to the UBRL testing center.
 - Multiple Testing Options**
Additional diagnostic testing, such as BVD, Bovine Leukosis Virus (BLV) and Johne's Disease, is available using the same milk sample.
- IDEXX Assay Kit**

Introduction

Milk Preg28 Test is an accurate milk pregnancy test in cattle designed to confirm and/or eliminate the uncertainty of pregnancy as early as 28 days post-insemination. Pregnancy loss is common and costly. The majority of pregnancy loss occurs within 56 days after conception. PAGs in milk are detectable 28 days post-breeding and continue to elevate throughout the gestation period. Milk pregnancy test offers a convenient method to diagnose pregnancy or reconfirm pregnancy in check pregnant cows. PAG levels decline rapidly and by day 60 are below detection level of the assay. Thus PAGs from previous pregnancy will not interfere with testing done 60 days post-calving. Obtaining milk sample for the test is a cost-effective and easy method that also eliminates the risk to the fetus due to palpation or ultrasound trauma. Sample can be taken daily to reduce open days.

Sample Kits

For sample collection kit options, submission forms and sending samples directly to the laboratory please contact:

Universal Biomedical Research Laboratory (UBRL)

Phone: (559) 498-0820

Email: ubrl@universalbiopharma.org

Test Description

UBRL Milk Preg28 Test is a IDEXX quantitative enzyme-linked immunoassay for the detection of pregnancy-associated glycoproteins (PAGs) in bovine milk as marker for pregnancy.

Milk Preg28 Test Sensitivity and Specificity

Sensitivity is defined as the capability of a test to accurately diagnose pregnant animals as test positive or pregnant.

Specificity is defined as the capability of a test to accurately diagnose non-pregnant (open) animals as test negative or open.

Performance on Par with Ultrasound/Palpation

		Pregnant (n=923)	Open (n=392)
IDEXX Milk Pregnancy	Pregnant	872	10
	Recheck	40	9
	Open	11	373

Agreement Between Milk and Serum-Based Test[#]

		Pregnant	Open
IDEXX Milk-Based Test	Pregnant	148	0
	Recheck	18	0
	Open	3	47

Sensitivity: 98.8% (95% CI = 97.7-99.3%)*

Specificity: 97.4% (95% CI=95.2-98.6%)

Rechecks: 4% of total tested (3% pregnant & 1% open)

*Performance of the IDEXX Milk Pregnancy Test was determined by comparing test results to those from ultrasound/palpation (N=1315 cows). Rechecks were not included in performance calculations. See IDEXX Milk Pregnancy Test validation report for full test performance data.¹

[#] Overall Agreement= 98.4%

Result Interpretation

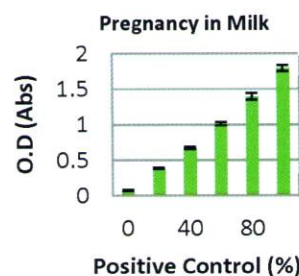
ELISA Reading	Interpretation
<0.100	OPEN
0.100 ≤ OD < 0.250	'RECHECK'
≥0.250	PREGNANT

The result is reported as **OPEN** (negative) if the reading is <0.10 and **PREGNANT** (Positive) if reading is ≥0.25. Sample values at & above 0.1- and below 0.25 are reported as **'RECHECK'**.

Note: 'Recheck' values could be due to embryonic death or insufficient time between freshening and sampling. 'Recheck' results should be verified by a veterinarian or new samples need to be collected after seven days and resubmitted for testing.

*UBRL encourages producers to work closely with their veterinarian to develop a reproductive management program that is appropriate for their operation.

Milk Pregnancy Assay Validation Summary (UBRL)



Precision data at various concentrations of positive and negative controls (n>3).

		Comparison Method (ANTEL BIO/Proficiency Samples)		
		Pregnant	Open	Total
New Method (UBRL)	Pregnant*	11	0	11
	Open	0	9	9
	Total	11	9	20

*Includes Recheck

Number of Observations	20
Open Agreement	100.00%
Pregnant Agreement	100.00%
Total Agreement	100.00%