

Animal Disease Diagnostic Laboratory
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ADDL Case #: A25-3628

Other ID:

Date Received: 8/26/2024

Submitter

CHRISTY YOUNG
3525 JOHN BRAGG HWY
WOODBURY, TN 37190

Premises

NONE SUBMITTED

Owner

NICKY PURVIS
244 ADAMS RD
HILLSBORO, TN 37342

Vet Phone: (615)563-3535

Species: Caprine

Sex: Unknown

Vet Fax:

Breed: Unknown

Age: Unknown

Premise ID: NONE SUBMITTED

Collection Date: 8/18/2024

Tests Requested in: Mol Diag

Test	Ordered	Status	Completed
Johne's (MAP) -PCR	8/26/2024	Complete	8/27/2024

Final Report

8/27/2024 8:42:36 AM

Molecular Diagnostics

by Dr. Rebecca Wilkes, Section Head

The following tests were performed using **PCR**.

Animal ID	Specimen	Organism	Ct	Result
Pool (DEMI,KAY,KALE,HORNY,MALARKEY)	Feces pool (1-5)	M. avium ss. paratuberculosis (Johne's) (pooled)	*	negative
Pool (NEFI,NOCKOUT,NINNY ,SKUNK,CREME)	Feces pool (6-10)	M. avium ss. paratuberculosis (Johne's) (pooled)	*	negative
Pool (TIA,BETTY,CONTI,PEONY,PRETTY LADY)	Feces pool (11-15)	M. avium ss. paratuberculosis (Johne's) (pooled)	*	negative
Pool (N/A 1,BAAD,AVA,STRUDEL,KNICKER)	Feces pool (16-20)	M. avium ss. paratuberculosis (Johne's) (pooled)	*	negative

Pool (MOSCAW,POPCORN,FRITTER,N/A 2,FUJI)	Feces pool (21-25)	M. avium ss. paratuberculosis (Johne's) (pooled)	*	negative
Pool (ANNIE,DID IT,MMM BAP,KITTEN,TIPSY)	Feces pool (26-30)	M. avium ss. paratuberculosis (Johne's) (pooled)	*	negative
Pool (MARALYIN,UMA,TARRASQUE,ZEPHYR,N/A 3)	Feces pool (31- 35)	M. avium ss. paratuberculosis (Johne's) (pooled)	*	negative
Pool (TREASURE,HARVEY,YETI,CIDER,CLARENCE)	Feces pool (36- 39)	M. avium ss. paratuberculosis (Johne's) (pooled)	*	negative

An * in the Ct field indicates not detected/Ct above the limits of detection.

Many nucleic acid amplification tests generate a number as part of the test result. For real-time PCR, this is called the Ct or "cycle threshold" value. A Ct value is defined as the number of amplification cycles required to reach a fixed background level of fluorescence at which the diagnostic result of the real-time PCR changes from negative (not detectable) to positive (detectable). The total number of cycles required to exceed the established threshold to call a result positive is specific to that test. We have an established cutoff beyond which the test result is considered negative, which is the last cycle of the test (a Ct value of 40). There is a relationship between Ct values and amount of pathogen in a patient specimen. A high Ct value often correlates with a low pathogen load because it has taken more cycles to determine the sample is positive. In general, Ct values up to 28 suggest abundant amounts of pathogen, Ct values 28.1-35 suggest moderate amounts of pathogen, and Ct values 35.1-40 indicate minimal amounts of pathogen. For samples with Ct values 36-40, ADDL repeats the test to rule out laboratory contamination. However, this could also represent contamination that has been introduced outside of the laboratory, latent infections, or subclinical or very early/late infection. Stage of infection also has an effect on pathogen load, and thus Ct value. In some cases, a specimen could have a very high pathogen load but also a high Ct value. This is unexpected, but there are other factors that can affect Ct value, such as poor sample handling, inappropriate shipping, inefficient extraction of the nucleic acid, etc. Any specimen that generates a result that is defined as "positive" by the test is considered positive. As with any diagnostic test, the result should be interpreted in the clinical context.