
Lab Dept: Microbiology/Virology

Test Name: KINGELLA KINGAE MOLECULAR DETECTION
PCR, NON-BLOOD

General Information

Lab Order Codes: KGRP

Synonyms: *Kingella kingae* PCR

CPT Codes: 87798 – Infectious agent detection by nucleic acid (DNA or RNA), not otherwise specified; amplified probe technique, each organism

Test Includes: *Kingella kingae* PCR reported as positive or negative.

Logistics

Test indications: Aiding in the diagnosis of *Kingella kingae* infection in tissue or synovial fluid specimens.

Kingella kingae is a fastidious short Gram-negative bacillus that may colonize the oropharynx of young children. Colonization may occasionally lead to invasive disease via hematogenous dissemination, primarily in children younger than 4 years of age. The most commonly results in bone and joint infection; *K kingae* is the most frequent cause of osteomyelitis and septic arthritis in children aged 6 to 36 months. *K kingae* may also cause endocarditis, involving both native and prosthetic valves, in patients of any age and is considered part of the HACEK (*Haemophilus species*, *Aggregatibacter species*, *Cardiobacterium hominis*, *Eikenella corrodens*, and *Kingella species*) group of organisms, known for causing culture-negative endocarditis, *K kingae* produces a repeat-in-toxin (RTX) toxin.

Lab Testing Sections: Microbiology/Virology - Sendouts

Referred to: Mayo Clinic Laboratories (Mayo test: KGRP)

Phone Numbers: MIN Lab: 612-813-6280

STP Lab: 651-220-6550

Test Availability: Daily, 24 hours

Turnaround Time: 2 – 7 days

Special Instructions: The high sensitivity of amplification by PCR requires the specimen to be processed in an environment in which contamination of the specimen by *Kingella kingae* DNA is unlikely.

Specimen

Specimen Type:	Synovial Fluid, Fresh tissue or biopsy (bone, joint, synovium, heart valve, aorta or endocardium), Paraffin embedded blocks
Container:	Synovial Fluid: Lavender top (EDTA) tube Fresh tissue or biopsy: Sterile container Paraffin embedded blocks
Draw Volume:	Synovial fluid: 0.5 mL fluid Fresh tissue or biopsy: Entire collection of 5 mm (no fluid added) Paraffin embedded blocks: Five 10-micron sections (Minimum: 2 sections)
Processed Volume:	Same as Draw Volume
Collection:	Fluid: Submit in original collection container Fresh Tissue: Fresh tissue in sterile container, no fluid added Paraffin embedded blocks: Submit formalin-fixed, paraffin-embedded block to be cut and returned. Perform microtomy and prepare 5 separate 10-micron sections (Minimum: two 10-micron sections). Each section must be placed in a separate sterile container for submission.
Special Processing:	Synovial Fluid, Fresh tissue: Store and ship refrigerated. Paraffin embedded blocks: Store and ship at room temperature.
Patient Preparation:	N/A
Sample Rejection:	Mislabeled or unlabeled specimens; tissue in formalin, formaldehyde or acetone; decalcified bone, bone marrow or slides

Interpretive

Reference Range:	Negative A negative result indicates the absence of detectable <i>K kingae</i> DNA, but does not negate the presence of the organism and may occur due to inhibition of PCR, sequence variability underlying primers or probes, or the presence of <i>K kingae</i> DNA in quantities less than the limit of detection of the assay. A positive result indicates the presence of <i>Kingella kingae</i> DNA.
Critical Values:	N/A

Limitations:

Test results should be used as an aid in diagnosis. The single assay should not be used as the only criteria to form a clinical conclusion, but results should be correlated with patient symptoms and clinical presentation. A negative result does not negate the presence of the organism or active disease.

This assay does not detect species of *Kingella* other than *kingae* or *negevensis*.

This assay cross-reacts with *Kingella negevensis*.

Methodology:

Real-Time Polymerase Chain Reaction (PCR)

References:

[Mayo Clinic Laboratories](#) (August 2020)