



Test kit for the colorimetric detection of canine distemper



> **Description** This new technology consists of a canine distemper test kit. The kit is comprised of a solution of gold nanoparticles modified with antibodies that causes a colorimetric change visible with the naked eye, for the detection and diagnosis of canine distemper virus.

> **Problem** Canine distemper is a highly contagious disease with high mortality rates, and its eradication is considered impossible due to its wide variety of hosts. One of the major problems in canine distemper is that its clinical signs are similar to those presented by other canine respiratory and enteric diseases, making its clinical diagnosis difficult and thus requiring laboratory confirmation. Although there are various techniques for the diagnosis of canine distemper, all of them have major limitations, in addition to requiring more than ten days of analysis from sample collection to laboratory confirmation, not to mention their high cost. This new technology allows for the rapid detection of canine distemper virus, in addition to presenting higher sensitivity and specificity than more modern analytical techniques such as reverse transcription polymerase chain reaction (RT-PCR).

> **Benefits** This new test kit shows excellent biocompatibility and easy conjugation to proteins, making it ideal as a biomarker for the detection of canine distemper. It can also be used by an untrained operator, since a positive test result appears as a change in the color of the solution. This methodology enables the veterinarian to begin medical treatment without the 10-day wait for analysis results by the conventional methods. Another key point is the low cost of this diagnostic test kit compared to the other existing methods.



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