

MagBio Collection and Transport/Lysis Medium - (MagBio CTL Medium)



For Virus-Yeast/Fungus - Bacteria Nucleic acids

MagBio CTL™ Medium



Collection – Transport/Storage-Lysis

ALL IN ONE

- **MagBio Collection and Transport /Lysis Medium serves multiple purposes; it can be used for collection; storage, transport and lysis of cells to release nucleic acid material from different sample types**
- **Viral RNA is stable in MagBio Collection and Transport /Lysis Medium for 10 days at Ambient temperature.**
- **Yeast DNA and *E.coli* DNA is stable for at least 3 days of storage at room temperature in MagBio Collection and Transport /Lysis Medium.**

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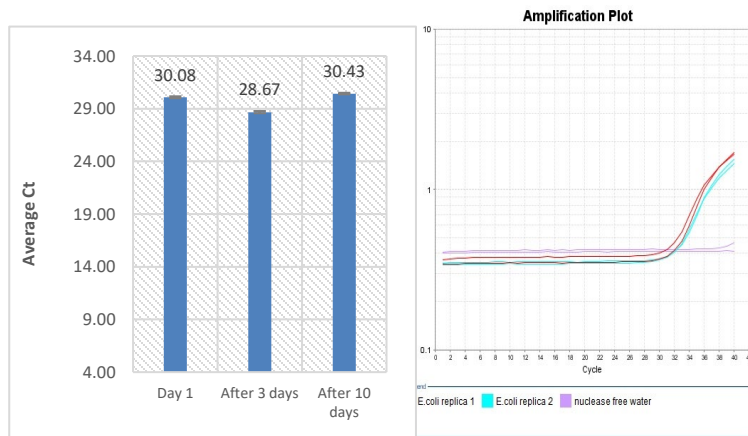
for Virus - Bacteria-Fungus Nucleic acids

Stability and Performance Data

Description: MagBio Collection and Transport /Lysis Medium is designed for the collection, transportation, storage, direct DNA/RNA microbial lysis and capture of nucleic acid material. There is no need for extraction of nucleic acid. The collection and transport medium lyses the organism releasing DNA/RNA into the medium while inactivating the pathogen. RNA/DNA can be captured by paramagnetic beads for use in downstream applications such as PCR, qPCR etc.

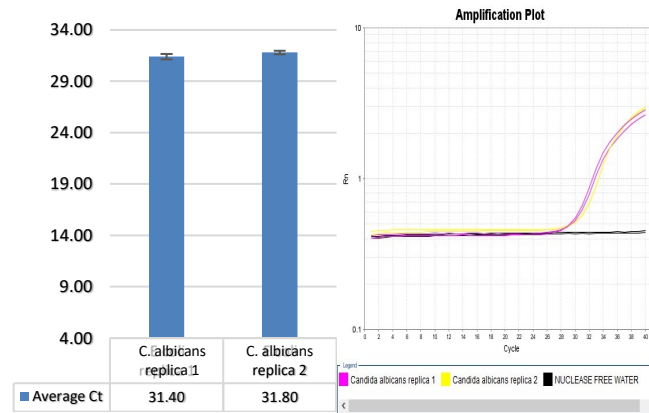
1- Virus collection and Transport/Lysis Human Coronavirus 229E

Amplification of RNA Captured from Collection and Transport/Lysis Medium



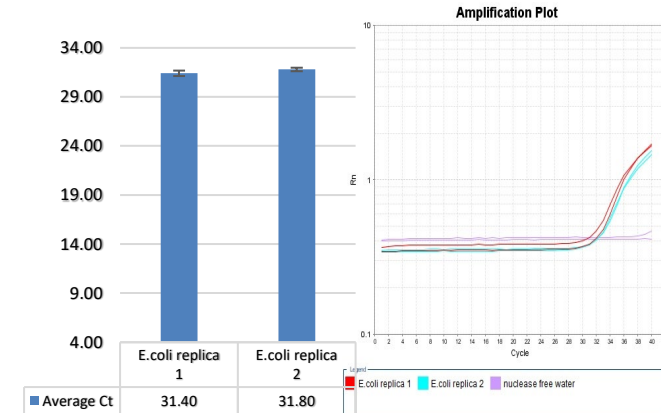
- Human Coronavirus 229E culture was diluted to 2.19×10^2 PFU/ mL in PBS containing background microflora from nasal swabs .
- 200 uL aliquots of virus spiked PBS was mixed with 290ul of MagBio Collection and Transport /Lysis Medium. The spiked samples were allowed to rotate in a sample rotator for 10 days (mimicking transportation of samples) to test the stability of RNA at room temperature.
- RNA stability was tested on Day 1 (after 30 minutes of rotation), after 3 days and finally after 10 days. Viral RNA was captured by paramagnetic beads and cell debris were washed off with 80% Ethanol
- The eluted RNA was subjected to Real Time amplification.
- Amplification of RNA was performed using Power SYBR Green RNA-to-CT 1 Step Kit (Applied Biosystems)- a one-step RT PCR Kit together with PanCov-03 primers.
- One-step RT PCR was performed on 7500 Real Time PCR system.

2- C.albicans collection and Transportation/Lysis



- Urine was spiked with Candida albicans to a final concentration of 1×10^2 CFU/mL.
- 400 ul of yeast spiked Urine was mixed with 500ul of MagBio Collection and Transport /Lysis Medium. The spiked samples were allowed to rotate in a sample rotator for 10 days (mimicking transportation of samples) to test the stability of DNA at room temperature.
- DNA stability was tested on Day 1 (after 12 hrs of rotation. **Note:** The stability testing is still ongoing for day 3 and 10).
- DNA was captured by paramagnetic beads and cell debris were washed off with 80% Ethanol. The eluted DNA was subjected to Real Time amplification.
- iTaq Universal SYBR Green Supermix (Biorad) together with ITS2 primers (Internal transcribed spacer 2 region (specific primers of C.albicans)) were used for the detection of C. albicans.

3- E.coli collection and Transportation/Lysis



- Urine was spiked with *E.coli* to a final concentration of 1×10^2 CFU/mL.
- 400 ul of *E.coli* spiked Urine was mixed with 500ul of MagBio Collection and Transport /Lysis Medium. The spiked samples were allowed to rotate in a sample rotator for 10 days (mimicking transportation of samples) to test the stability of DNA at room temperature.
- DNA stability was tested on Day 1 (after 12 hrs of rotation. **Note:** The stability testing is still ongoing for day 3 and 10).
- DNA was captured by paramagnetic beads and cell debris were washed off with 80% Ethanol. The eluted DNA was subjected to Real Time amplification.
- iTaq Universal SYBR Green Supermix (Biorad) together with *E.coli* specific primers were used for the detection of *E.coli*.

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Summary

- MagBio Collection and Transport /Lysis Medium serves multiple purposes; it can be used for collection; storage, transport and lysis of cells to release nucleic acid material from different sample types as shown by the data.
- Viral RNA is stable in MagBio Collection and Transport /Lysis Medium for 10 days at room temperature.
- Yeast DNA and *E.coli* DNA stability study is still ongoing but so far, the data has shown that DNA is stable for at least 12hrs of storage at room temperature in MagBio Collection and Transport /Lysis Medium.
- Mores sample types such as buccal cells, blood, saliva etc. are still to be tested with this Medium.