



## PMH Laboratory Inc. FAQ

**Q:** Why is a nasopharyngeal swab better than an anterior nares swab, oral swab, or saliva?

**A:** A proper nasopharyngeal swab provides the cleanest sample currently possible. The anterior nares (nostril) and mouth contain dirt, bacteria, and other materials that could cause interference and unclear readings leading to potentially incorrect results.

**Q:** What type of swab would you recommend for me?

**A:** Depending on age and medical history, it may be recommended you use a specific swab:

1. Toddlers are recommended anterior nares swabs in only one nostril
2. Ages 12 and below are recommended anterior nares swabs due to their developing cribriform plate and sensitivity to pressure
3. Anyone with prior nasal damage may be recommended to use anterior nares swabs
4. Ages 13 and above are recommended to use nasopharyngeal swabs in both nostrils

**Q:** Are there any guidelines as to what we have to do or not do before we get tested?

**A:** DO NOT blow your nose or clean excessively deep. You may lightly clean any dirt from your nostrils (anterior most portion). Mucus in the nasopharynx is fine.

**Q:** What kit does PMH use for its qPCR analysis?

**A:** PMH utilizes the AzureSeq-200 kit from SeqOnce which uses RNaseP as its control and detects the N1 and N2 genes of the SARS Covid-19 virus.

**Q:** Why does PMH use SeqOnce, and how does PMH determine a result?

**A:** The SeqOnce kit PMH uses detects the N1 gene, the most stable indicator for SARS Covid-19. PMH determines results based on a three-check system:

1. **RNaseP:** the control, derived from human cells. Presence of this gene indicates a successful sample collection.
2. **N1:** the primary check. It is the most stable indicator gene among SARS Covid-19 strains. Presence of this gene likely means that the patient has been infected.
3. **N2:** the secondary check. It is less stable than the N1 gene, but is used as confirmation after the N1 check.

This kit can detect all current variants of the SARS Covid-19 virus. Other kits such as TaqPaq that utilize the S gene as one of its primary indicators, which is not as stable as the N1 gene.

**Q:** What is the difference between IgM and IgG testing, and what does either mean?

**A:** IgM is the initial antibody the body produces when it detects an infection. It is non-specific but gives a vague idea of whether a patient has been infected with an antigen, Covid-19 or otherwise. IgG is the antibody the body produces for viruses. It is more specific to viral antigens, and a better indicator for prior Covid-19 infection.

**Q:** My IgM test showed a positive result, but my qPCR test was negative. What does this mean?

**A:** This could mean that you might have been infected, but your viral load is not yet high enough to detect by qPCR. You are recommended to retest within a few days to determine whether you have the virus or not.

**Q:** I have received my result via email. What does it mean, and what do I do next?

**A:** If your result is...

1. **Positive:** your sample showed a positive reading for all three checks (N1 gene, N2 gene, and RNaseP). The patient should quarantine for 10 days during which they should rest and hydrate. They should test again after the 10 days to check their status.
2. **Negative:** your sample showed a positive reading for RNaseP but negative for N1 and N2 genes. Although the patient is negative for SARS Covid-19, they should still practice social distancing.
3. **Indeterminate:** your sample failed the RNaseP control twice, indicating that the sample was not sufficient to produce a reliable reading. The patient must come back for sample recollection
4. **Equivocal:** your sample showed a positive reading for RNaseP but inconclusive results for the N1 gene, N2 gene, or both after primary and secondary testing. This could be because the patient's viral load is not high enough to produce a reliable result. The patient cannot be determined as positive or negative, and must come back for sample recollection.

**Q:** When can I expect my result?

**A:** Typical turnaround time for a result is 24-72 hours after it arrives at the lab. Samples may need to be rerun due to random error or to verify a result.

**Q:** I have received the vaccine. Should I still test?

**A:** The current vaccine offered targets the 2020 COVID-19 strain originating from China. The vaccine utilizes mRNA for the virus' spike protein to promote production of antibodies and increase the body's ability to fend off the virus. The new COVID-19 strain originating from the UK contains a different spike protein from the China strain, so the current vaccine has not shown efficacy towards the UK strain thus far. Also, although a person may receive the vaccine, they are still able to contract the virus and act as a carrier without showing any symptoms. However, both strains do share the same RNA which is detectable by qPCR testing. Even though a patient may receive the current Pfizer/Moderna vaccine, they are highly recommended to continue regular testing and social distancing.

