



2X HoTaq PCR Reaction Mix

CAT # (SKU): HTP-400

FOR RESEARCH USE ONLY

Storage

This product should be stored at -20°C . To avoid repeated freeze-thaw, opened vials should be kept at 4°C .

About the product

2X HoTaq PCR Reaction Mix utilizes a proprietary hot-start PCR technology (patent pending). It enables sensitive detection of DNA and fast thermocycling.

Primer and probe design

To achieve the best performance, appropriate software, such as Primer Express, should be used.

1. T_m : 60°C for primers and $68\sim 70^{\circ}\text{C}$ for probes
2. Amplicon size should be small, $<150\text{bp}$
3. To avoid secondary structures in primers and probes
4. To avoid more than 3 consecutive Gs in primers and probes
5. Primers should not have complementary 3' ends
6. 17 ~ 30 nucleotide in length

Reaction conditions

The recommended thermocycling condition is: 95°C , 10min. \rightarrow (95°C , 5 sec. \rightarrow 60°C , 30 sec.) for 50 cycles.

Notes

To achieve accurate quantification, it is highly recommended to do replicates. Three is the minimal number of replicates to obtain a standard deviation.

It is important to reduce pipetting error. Three ways to minimize pipetting error are:

1. To prepare an amplicon specific master mix that includes PCR reaction mix, primers, and probes.
2. To use a repeat pipet.
3. To pipet volume within manufacture's suggested range.

This reaction mix contains internal passive reference dye (ROX).