

## Product Datasheet

# Vazyme - 2 × Phanta Max Master Mix (Dye Plus (P525-03)

### Description

Phanta Max has added unique elongation factors, specificity promoting factors and plateau uninhibiting factors, which greatly improves the ability of long fragment amplification, amplification specificity and amplification yield. Using simple templates such as λDNA and plasmids, Phanta Max can effectively amplify fragments up to 40 kb; using complex templates such as genomic DNA, Phanta Max can effectively amplify fragments up to 20 kb; using cDNA templates, Phanta Max It can effectively amplify fragments up to 10 kb. Its amplification error rate is 1/128 of that of conventional Taq polymerase and 1/6 of that of Pfu polymerase. In addition, Phanta Max has good resistance to PCR inhibitors and can be used for direct PCR of bacteria, fungi, plant tissues, animal tissues or whole blood samples. Phanta Max contains two monoclonal antibodies that can inhibit its 5' → 3' polymerase activity and 3' → 5' exonuclease activity at room temperature, enabling highly specific hot-start PCR. This product contains Phanta Max Super-Fidelity DNA Polymerase, dNTP and an optimized buffer system. It only needs to add primers and templates to perform amplification, which reduces pipetting operations and improves detection throughput and results reproducibility. The protective agent added to the system allows the 2 × Master mix to maintain stable activity after repeated freezing and thawing. The kit contains loading dye, which can be directly spotted for electrophoresis after reaction. The enzyme has 5'→ 3'polymerase activity and 3'→ 5'exonuclease activity, and the amplified product is blunt-ended, suitable for ClonExpress and TOPO cloning kits (C112/C113/C115/C601).

### Storage

Store at -30 ~ -15°C and transport at ≤0°C.

### Note

For research use only

### Application notes

Ultra-high fidelity: ~128X higher than Taq DNA Polymerase  
Longer amplicon lengths: Up to 40 kb simple templates, 10 kb cDNA and 20 kb gDNA  
Robust performance: Superior specificity, sensitivity, and yields  
Broad Compatibility: Suitable for complex samples & GC-rich systems

### Expiration Date

12 months from date of receipt.

#### Biorbyt Ltd.

7 Signet Court, Swann's Road,  
Cambridge, CB5 8LA, United Kingdom  
Email: [info@biorbyt.com](mailto:info@biorbyt.com), [support@biorbyt.com](mailto:support@biorbyt.com)  
Phone: [+44 \(0\) 1223 859-353](tel:+44(0)1223859353) | Fax: [+1 \(415\) 651-8558](tel:+1(415)6518558)

#### Biorbyt LLC.

68 TW Alexander Drive,  
Durham, NC, 27713, United States  
Email: [info@biorbyt.com](mailto:info@biorbyt.com), [support@biorbyt.com](mailto:support@biorbyt.com)  
Phone: [+1 \(415\) 906-5211](tel:+1(415)9065211) | Fax: [+1 \(415\) 651-8558](tel:+1(415)6518558)



---

**Biorbyt Ltd.**

7 Signet Court, Swann's Road,  
Cambridge, CB5 8LA, United Kingdom  
Email: [info@biorbyt.com](mailto:info@biorbyt.com), [support@biorbyt.com](mailto:support@biorbyt.com)  
Phone: [+44 \(0\) 1223 859-353](tel:+44(0)1223859353) | Fax: [+1 \(415\) 651-8558](tel:+1(415)6518558)

**Biorbyt LLC.**

68 TW Alexander Drive,  
Durham, NC, 27713, United States  
Email: [info@biorbyt.com](mailto:info@biorbyt.com), [support@biorbyt.com](mailto:support@biorbyt.com)  
Phone: [+1 \(415\) 906-5211](tel:+1(415)9065211) | Fax: [+1 \(415\) 651-8558](tel:+1(415)6518558)