# Product Datasheet

## Hot Start Polymerase Apta+ (orb1733706)

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| **Description** | Hot Start Polymerase Apta+ provides improved specificity and sensitivity when amplifying low-copy-number targets in complex backgrounds or when prolonged room-temperature set up is required. The polymerase activity is blocked at ambient temperature and switched on automatically at the onset of the initial denaturation. The thermal activation prevents the extension of nonspecifically annealed primers and primer-dimer formation at low temperatures during PCR setup. The polymerase is recommended for routine PCR applications (up to 4 kb fragment length), high throughput PCR or genotyping. The Crystal Buffer system guarantees robust and reliable amplifi-cation results in almost all PCR applications. The buffer contains a well-balanced ratio of potassium-, ammonium-and magnesium-ions to ensure high specificity and minimal by-product formation without the need of additional optimization steps. Ruby Buffer additionally contains gel loading buffer and an inherent red dye allowing the direct loading of the PCR product into the gel. The red dye allows an easy visual control during PCR set-up and in combination with the density reagent the direct loading of the reaction product into the gel. The enzyme replicates DNA at 72 °C. It catalyzes the polymerization of nucleotides into duplex DNA in 5'→3' direction in the presence of magnesium. It also possesses a 5'→3' polymerization-dependent exonuclease replacement activity but lacks a 3'→5' exonuclease (proof-reading) activity. |
| **Form/Appearance** | liquid |
| **Concentration** | 5 units/µl |
| **Storage** | store at -20 °C. avoid freeze/thaw cycles |
| **Note** | For research use only |
| **Clonality** | Recombinant |
| **Expiration Date** | 12 months from date of receipt. |

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