

DATA QUALITY SHEET



GeneScriptPlus™ Reverse Transcriptase

FOR RESEARCH USE ONLY
Cat. GC-066-1000

| | |
|------------------------------|--|
| DESCRIPTION | GeneScriptPlus™ Reverse Transcriptase is an optimized mutant of GeneScript™ Reverse Transcriptase that is active at 55°C and has a half-life of 15 minutes, providing increased specificity with Gene-Specific Primers (GSPs) and the highest cDNA yield of all RTs. It is ideal for RT-PCR of a specific gene or generating cDNA from total or poly (A)+ RNA sample. It synthesizes a complementary DNA strand from single-stranded RNA or DNA. GeneScriptPlus™ is genetically engineered by the introduction of point mutations that reduce RNase activity and increase thermal stability. The structural modifications provide: <ul style="list-style-type: none">• Full activity at 55°C for increased specificity with GSP• Ability to increase RT units without inhibiting subsequent PCR |
| CONCENTRATION | 200 units/μl. |
| UNIT DEFINITION | One unit is defined as the amount of enzyme that incorporates 1 nmol of dTTP into acid insoluble form in 10 minutes at 37°C using poly(rA)-oligo(dt) 10-20 as template primer. |
| STORAGE BUFFER | 50 mM Tris-HCl pH 8.3, 1 mM EDTA, 0.1 mM DTT, 0.1 mM NaCl, 0.1% Triton X-100, 50% glycerol (v/v) |
| STORAGE TEMPERATURE | Store GeneScriptPlus™ Reverse Transcriptase below 0°C, preferably at -20°C, in a constant temperature freezer |
| 5x REACTION BUFFER | 250 mM Tris-HCl pH 8.3, 15 mM MgCl ₂ , 400 mM KCl, 2mM MnCl ₂ , 10mMDTT |
| UNIT ASSAY CONDITIONS | 20 mM Tris-HCl pH 8.0, 2 mM MnCl ₂ , 100 mM KCl, 10 mM DTT, 0.6 mM poly rA, 0.1 mM poly(dT)10-20, 0.5 mM dTTP(3H) – 0.5-5 units of enzyme |
| QUALITY ASSURANCE | GeneScriptPlus™ Reverse Transcriptase is tested for its ability to synthesize full length cDNA from 4kb RNA |

Certified by: _____ Date: 01/07/2008