Product Description:
qScript XLT cDNA SuperMix is a next-generation tool for first-strand cDNA synthesis, providing a highly sensitive and easy-to-use solution for two-step RT-PCR and RT-qPCR. qScript XLT is an engineered M-MLV reverse transcriptase mutant with reduced RNase H activity and improved yield and stability at higher temperatures. Combined with a precise mixture of reaction components, this SuperMix enables superior results over a wide dynamic range of input RNA, with up to 8-fold higher sensitivity than our previous qScript cDNA SuperMix cDNA synthesis kits, which utilize an engineered RNase H(+) reverse transcriptase mutant.

Component Part Numbers:
84357 qScript XLT cDNA SuperMix 0.40mL

Quality Control Analysis and Specifications:
Nuclease Assay:
**DNase**: DNase activity must be below the detectable limits of 100 pg DNase I equivalent as assayed using a fluorogenic substrate following a 1 hour incubation at 37°C with each kit component at 1X concentration.

**RNase**: RNase activity must be below the detectable limits of 1 pg RNase A equivalent as assayed using a fluorogenic substrate following a 1 hour incubation at 37°C with each kit component at 1X concentration.

**qScript XLT cDNA SuperMix Functional Assay**: Real-time One-Step RT-PCR of a reference gene (ACTB) in triplicate reactions is performed on a 10 fold serial dilution over 6 orders of dynamic range (100 ng to 100 fg) using a Universal Reference total RNA preparation. Slope from Ct standard curve analysis between -3.20 and -3.65. No Template Control below the threshold for at least two replicates.