Xeno IPC
Applied Biosystems™ VetMAX™ Xeno™ IPC serves as an internal positive control for the nucleic acid extraction process and/or monitors for the presence of qPCR inhibitors. It also serves as a positive control for qPCR. Xeno IPC is provided at a concentration of 10,000 copies/µL and available for RNA or DNA.

Xeno IPC assay
Applied Biosystems™ Xeno™ IPC assay is a primer/probe mix that detects the Xeno IPC. The resultant Xeno™ data is used to determine the validity of diagnostic test results. Xeno IPC assay’s novel synthetic design has been successfully benchmarked against millions of genomes, including those relevant to animal health diagnostics. It is available in 25X concentration, with multiple dye options.

Benefits
• Easily integrated into any qPCR workflow
• Helps provide confidence that qPCR test results are accurate and actionable
• Helps reduce the likelihood of false negatives

Features
Flexible formats
Available as individual IPCs and assays, Xeno IPCs provide labs with a flexible portfolio of solutions:
• RNA or DNA IPCs
• Applied Biosystems™ VIC™ and LIZ™ dye channel formats
• High- and low-throughput kit options

Proven quality
• Recommended in the American Association of Veterinary Laboratory Diagnosticians (AAVLD) guidelines
• Xeno IPC is a component used in our USDA-licensed Applied Biosystems™ VetMAX™-Gold kits and VetMAX™-Plus kits
• Xeno IPC assay has been used in many of our Applied Biosystems™ VetMAX™ reagents

Compatible reagents
Xeno IPC is compatible with a variety of qPCR workflow reagents:
• Applied Biosystems™ MagMAX™ kits, and other magnetic-bead based or spin column sample preparation kits
• VetMAX™ reagents or laboratory-prepared assays
• Applied Biosystems™ AgPath-ID™, Path-ID™, and VetMAX™ Plus reagents, or other commercial reagents

Enable the right result the first time
Qualified results
Using Xeno IPC effectively monitors for qPCR inhibition, which means that you can easily qualify your testing results. Its novel synthetic design prevents the assay from producing false signals from nonspecific targets. Figure 1 shows how Xeno IPC identifies the presence of a qPCR inhibitor (hematin) at multiple concentrations. Since the expected range of $C_t$ values in a normal reaction (without inhibition) with Xeno IPC is known, you can determine the effect the inhibition has on the reaction, thereby lowering the risk of false-negative results.

Figure 1. Graph depicting the effect of increasing inhibition on RNA target and subsequent effect on Xeno IPC. One hundred copies per reaction of RNA target and 1,000 copies per reaction of Xeno IPC were exposed to increasing levels of hematin (0–4 µM). The data show that Xeno IPC follows the target’s trend of increasing $C_t$ values due to inhibition and therefore can be used as an indicator of inhibition in the reaction. Reactions were carried out on the Applied Biosystems™ 7500 Real-Time PCR System, run in standard mode.

Xeno IPC workflow
1. Introduce Xeno IPC to the lysis solution used for nucleic acid isolation, to serve as a positive control for recovery of nucleic acid.
2. Add Xeno IPC assay during qPCR reaction setup as an amplification control.
3. Add diluted Xeno IPC into positive control wells to confirm Xeno assay performance.

Ordering information

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