



## Mpox qPCR ASSAY (RESEARCH USE ONLY)

### Accurate Detection of Mpox Virus (Clade I and II)

Mpox has caused significant global outbreaks, with Clade II affecting 116 countries in 2022–2023, and Clade Ib declared a Public Health Emergency in 2024. Reliable diagnostics are essential to manage cases and prevent further spread. Transmission occurs through direct contact with lesions, contaminated objects, or sexual contact, facilitating rapid global dissemination.

Early detection is critical for outbreak control, and the Mpox qPCR assay provides laboratories with a reliable solution to meet this need. The Mpox qPCR assay is a universal multiplex assay designed to detect two independent Mpox gene targets and an Internal Control to ensure assay and sample integrity. This highly sensitive and reliable assay provides robust detection for Research Use Only (RUO) applications, supporting efforts to monitor and manage Mpox outbreaks worldwide.

#### FEATURES

**Comprehensive Mpox Detection:** Contains proprietary oligos for two pan-Mpox gene targets, targeting G2R and F3L Mpox gene sequences.

**Validated Compatibility:** Specifically validated for QuantStudio™ 5 Real-Time PCR systems.

**High Sensitivity:** Detects low levels of Mpox DNA for confident results to lower end of clinical range.

**Scalable Testing:** Kit format supports up to 96 samples, varying batch sizes for maximum flexibility.

**Rapid Turnaround:** Efficient workflow optimised for laboratory efficiency. Less than 1 hour required for PCR run.

**High Specificity:** Proven not to amplify when tested against various exclusivity targets including genetically related and common co-infections, including other Orthopoxviruses like Cowpox.

**Aliquoted Reagent Vials:** Multiple vials of each reagent (x2) provide increased shelf life.



**ASSAY BENEFITS:**

**Competitive Assay Performance:** High Specificity and Sensitivity of the assay mean less false negatives and false positives to improve workflow effectiveness and efficiency.

**Advanced Assay Design:** Engineered to account for evolving Mpox clades, ensuring future utility. Reduced effects of random viral mutation affecting assay performance compared to single gene target assays.

**Internal Control Included:** Sample quality control Ensures assay integrity and minimises the risk of false negatives.

**Streamlined Workflow:** Easy setup with pre-validated reagents, reducing lab complexity.

**Precision and Reliability:** Validated for reproducibility and stability under various conditions. Each reagent vial is capable of up to 6 freeze/thaw cycles for repeated use.

**Compatible and Convenient:** Compatible with existing nucleic acid extraction systems.

ASSAY TARGETS	
G2R (Pan-Mpox)	F3L (Pan-Mpox)
QUALITY CONTROL	
Internal Control included to monitor assay and sample quality through the entire workflow.	
ORDERING INFORMATION	
Mpox qPCR Assay	Cat Code: QP10691