

## AzuraView™ GreenFast qPCR Blue Mix HR

Catalog No.	Pack Size and Concentration	Components and Volume
AZ-2401	100 x 20 µl reactions, 2x	2x AzuraView GreenFast qPCR Blue Mix HR - 1 x 1 mL
AZ-2405	500 x 20 µl reactions, 2x	2x AzuraView GreenFast qPCR Blue Mix HR - 5 x 1 mL
AZ-2420	2000 x 20 µl reactions, 2x	2x AzuraView GreenFast qPCR Blue Mix HR - 20 x 1 mL
AZ-2450	5000 x 20 µl reactions, 2x	2x AzuraView GreenFast qPCR Blue Mix HR - 10 x 5 mL

### Description

The AzuraView™Green Fast qPCR Blue Mix is an ultra-stable 2x master-mix comprised of a non-inhibitory intercalating dye, Azura HS Taq DNA Polymerase and a highly optimized reaction buffer containing a blue tracer dye for use in SYBR™ real-time quantitative PCR assays. The AzuraView™Green Fast qPCR Blue Mix reliably quantifies cDNA and genomic DNA and is formulated for room temperature stability and increased resistance to freeze-thaw cycles. The ready-to-use 2x master mix delivers an increased limit of detection with best-in-class sensitivity, and the inert blue dye provides an easy-to-see, easy-to-pipette format. In order to determine instrument compatibility and the most appropriate formulation, please refer to the qPCR Reagent Compatibility Tool.

**Flexibility:** Compatible with standard and fast cycling instruments and a wide range of cycling parameters.

**Easy-to-See and Easy-to-Pipette:** Contains inert blue tracer dye to simplify the set-up of PCR Plates

**Excellent Stability:** Room temperature stable for up to 30 days and increased resistance to freeze-thaw cycles

**Sensitivity and Speed:** A non-inhibitory intercalating dye and optimized buffer chemistry provides an increased limit of detection.

### Storage

AzuraView™GreenFast qPCR Blue Mix HR is shipped on blue ice and should be stored at –20°C upon receipt. Excessive freeze/thawing should be avoided. When stored as specified, AzuraView™GreenFast qPCR Blue Mix HR is stable for 18 months from date of receipt. The 2x Mix may also be stored at 4°C for 4 months or 23°C for 1 month.

### Important Guidelines

- Use primer-design software, such as Primer3 (<http://frodo.wi.mit.edu/primer3/>) or visual OMP™ (<http://dnasoftware.com/>). Primers should have a melting temperature (T<sub>m</sub>) of approximately 60°C.
- Ideally, the optimal amplicon length should be 80 bp - 200 bp and should not exceed 400 bp.
- Different real-time PCR instruments require different levels of ROX™ passive reference dye. Generally, modern instruments do not require passive reference but include the option to use it for normalization. Please refer to the qPCR Reagent Compatibility Tool to determine which kit is the most suitable for your instrument.
- When comparing AzuraView™GreenFast qPCR Blue Mix HR with a reagent from an alternative supplier, we strongly recommend amplifying from a 10-fold template dilution series. Loss of detection at low template concentration is the only direct measurement of sensitivity. An early Ct value is not an indication of good sensitivity, but rather an indication of reaction speed.

## Reaction setup

1. Prepare a qPCR master mix based on following table (and briefly vortex AzuraView™GreenFast qPCR Blue Mix HR before use):

Component	20 µl Reaction	Final Concentration/Notes
2x AzuraView™GreenFast qPCR Blue Mix HR	10 µl	1x
Forward Primer (10 µM)	0.8 µl	400 nM
Reverse Primer (10 µM)	0.8 µl	400 nM
Template DNA	<100 ng cDNA, <1 µg genomic DNA	variable
PCR-grade water	Up to 20 µl final volume	

\* For alternative total reaction volumes (eg. 25 µl), scale all components proportionally to maintain final concentrations.

2. Program the qPCR instrument using following conditions, acquiring data on the SYBR® Green or FAM channel:

Cycles	Temperature & Time	Notes
1	95°C, 2 minutes	Enzyme activation; use 3 minutes for genomic DNA
30 - 40	95°C, 5 seconds 60°C to 65°C, 20 - 30 seconds	Denaturation Anneal/Extension (do not exceed 40 seconds and do not use temps below 60°C for optimal results)
Melt Analysis (Optional)		

## Quality Control

AzuraView™GreenFast qPCR Blue Mix HR is tested extensively for robust activity, processivity, efficiency, heat activation, sensitivity, absence of nuclease contamination and absence of nucleic acid contamination. AzuraView™GreenFast qPCR Blue Mix HR is manufactured under a comprehensive quality management system, following ISO 9001:20015 standards.

## Limitations of Use

This product is intended for research purposes only and is not intended for any animal or human therapeutic use.

## Technical Support

For Trouble-shooting and Technical Guidance, please contact us at [tech@azuragenomics.com](mailto:tech@azuragenomics.com) and provide qPCR reaction conditions, cycling parameters, amplicon size, and screen grabs (amplification traces and melting profiles) if possible.

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