

Datasheet

Targets:

- *Orthopox Viruses*
- *Monkeypox Virus*

Target Genes:

- RPO132 (Orthopox)
- OPG168/OPG169 (Monkeypox)

Product ID / Catalogue Number:

R00948 - genesig® Advanced

R01311 - genesig® Complete

Handbooks:

genesig® Advanced Kit for Mpx 2G

genesig® Complete Kit for Mpx 2G

Specificity of primers and probes last reviewed on:

16 August 2024

For further assistance please contact Techsupport @primerdesign.co.uk

For purchase orders please contact customer.services@novacyt.com

Mpox 2G

Introduction

Introducing the genesig® Complete Kit for Mpx 2G and the genesig® Advanced Kit for Mpx 2G from Primerdesign. Two clades of mpox have been identified, the Congo Basin clade 1 (associated with higher human-to-human transmission and higher mortality) and the West African clade 2 (associated with milder infection). Most cases are reported from the Democratic Republic of the Congo and Nigeria. Since an outbreak of clade 2 in May 2022, cases have been reported in Europe, North America, and other parts of the globe. A more recent outbreak has confirmed cases of a new variant clade 1b, prompting the World Health Organisation (WHO) to declare a Global Health Emergency: https://www.who.int/health-topics/monkeypox/#tab=tab_1.

The fatality rate of human mpox can range from 1% up to 11%, with younger age groups having the highest rate¹. Clinical presentations in humans are similar to smallpox with fever, headache, swollen lymph nodes, fatigue and muscle aches along with characteristic pox lesions. The incubation period from infection to the onset of symptoms can be between 5-21 days with 6-13 days being the average.

Specificity

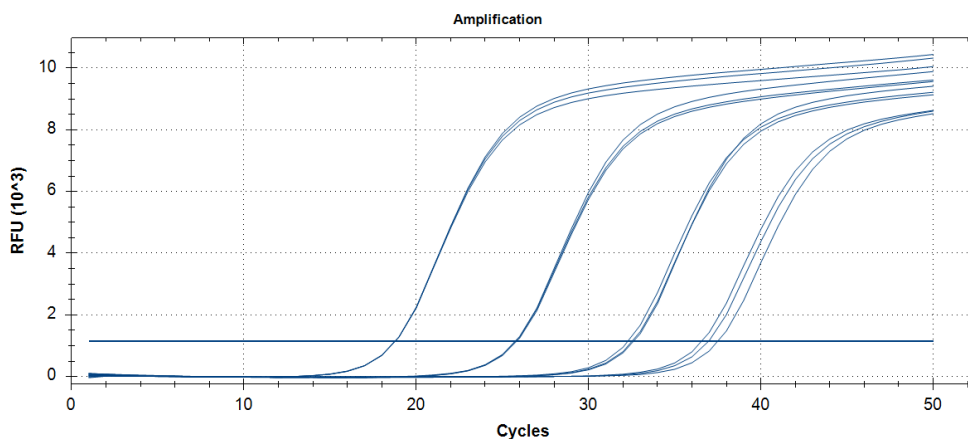
The genesig® mpox 2G kit primers are designed to detect over 99.9% of all full length sequences on the GISAID EpiPox™ database from both clades 1 and 2. This includes the newly identified clade 1b. The dynamics of genetic variation mean that new sequence information may become available after the initial design. Primerdesign periodically reviews the detection profiles of our kits and, when required, releases new versions.

Kit Components

genesig® Advanced kit for mpox 2G		genesig® Complete Kit for mpox 2G	
Component	Reaction number	Component	Reaction number
-	-	oasig standard Lyophilised Master Mix	150
-	-	oasig resuspension buffer	150
Assay specific primer/probes	150	Assay specific primer/probes	150
Endogenous control primer/probes	150	Endogenous control primer/probes	150
Internal extraction control primer/probes	150	Internal extraction control primer/probes	150
Assay specific Positive control template	150	Assay specific Positive control template	150
Internal extraction control template (DNA)	150	Internal extraction control template (DNA)	150
RNase/DNase free water	150	RNase/DNase free water	150
-	150	Rox	150

Data

Our genesig® kits for mpox 2G have been tested with the sequence for the new clade 1b variant, and our data demonstrates that the assay detects this variant, whilst maintaining performance with high sensitivity and linearity.



Standard curve for Monkeypox clade 1b variant tested with synthetic DNA
(Curves from left to right: 10⁶, 10⁴, 10², 10 copies)

References

1. Monkeypox fact sheet. WHO. <https://www.who.int/news-room/fact-sheets/detail/monkeypox>

Notices and disclaimers

This product is developed, designed and sold for research purposes only. It is not intended for human diagnostic or drug purposes or to be administered to humans unless clearly expressed for that purpose by the Food and Drug Administration in the USA or the appropriate regulatory authorities in the country of use. During the warranty period Primerdesign genesig detection kits allow precise and reproducible data recovery combined with excellent sensitivity. For data obtained by violation to the general GLP guidelines and the manufacturer's recommendations the right to claim under guarantee is expired.

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