

Emerging Viral Infections and Disease: **Focus on monkeypox**

Diagnosis- Diagnostic tests and appropriate handling and shipment of biological specimens

Dr. Belinda Herring
Technical Officer
WHO AFRO



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**World Health
Organization**

Africa

Laboratory diagnosis and genomics of human monkeypox in the African region

Recommended specimens for MPXV detection:

- Fluid from skin lesions (swab)
- Swabs of lesion surface
- Roofs from more than one lesion, or lesion crusts.

Recommended methods for MPXV detection:

Real-time PCR

- MPXV primers OR
- Clade specific primers

Available detection kits in the marketplace for MPXV detection[#]

- Shanghai ZI Bio-Tech Co. Life river Monkeypox Virus Real time PCR kit^{^*}
- Tib Molbiol, LightMix Modular Monkeypox + 1-step RT polymerase^{^*}
- RADI Monkey Detection Kit
 - validated by INRB
- Bioperfectus Monkeypox Virus PCR kits (Jiangsu Bioperfectus Technologies Co., Ltd)
 - validated by NCDC
 - Central African clade & West African clade detectable

[#] No kits EUL and not endorsed or recommended by WHO

^{*} selected for procurement following desk review of all available options

[^] being validated by selected laboratories

Most current samples belong to what is being called Clade IIb, a sub-lineage of Clade II. Not a recent divergence



Source: Institut Pasteur de Bangui

Shipment of human monkeypox specimens

Recommended specimens for MPXV detection:

- Fluid from skin lesions (swab)
- Swabs of lesion surface
- Roofs from more than one lesion, or lesion crusts.
- Collected in sealed containers

Recommended method for MPXV detection: PCR

CLASSIFY

Classification of **MPXV** specimens is:

- **Class 6** Toxic and Infectious Substances
 - **6.2 Infectious Substances**
 - **Category A - UN2814**
 - Category B - UN3373

Guidance on regulations for the transport of infectious substances, 2021-2022

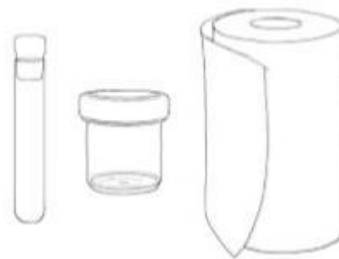
<https://www.who.int/publications/i/item/9789240019720>



Follow WHO Guidance for Infectious Substance Shipping

PACKAGING: Always Triple Package

PRIMARY
Watertight, leakproof receptacle wrapped in absorbent material



SECONDARY
Watertight, Leakproof packaging



OUTER
Protective packaging



If SHIPPING by AIR:

FOLLOW SPECIFIC PACKAGE INSTRUCTIONS for Category A - P620 and Category B - P650

Questions?



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