

Microbix Quality Assessment Products (QAPs™) are whole-process, external quality controls that are designed to resemble patient specimens. These products are formulated with native pathogens or protected synthetic whole-genome targets that are inactivated to meet clinical laboratory biosafety requirements. Microbix external quality controls monitor the entire diagnostic workflow, including

preanalytical patient sample collection and processing steps, lysis, extraction, and purification (if applicable), target detection, and analysis. All products are commutable, cross-platform compatible, and have verified performance on leading IVD assays. Microbix offers swab-based and liquid-based QAPs™ formats to meet a variety of end-user needs.



Properties of Swab QAPs™

- Optimal for Point of Care (POC) near-patient testing workflows
- Stable for up to 2 years when stored at 2-30°C
- Desiccated on a Copan FLOQSwab®
- Can be eluted in your choice of media
- Preferable storage conditions for distribution/supply chain logistics
- Excellent lot-to-lot reproducibility

Properties of Liquid QAPs™

- Optimal for high-throughput central laboratory workflows
- Stable for up to 2 years when stored at 2-8°C
- Volume: 0.5 -1.0mL
- Excellent lot-to-lot reproducibility and homogeneity

Maximize your UP TIME!
our controls help detect workflow performance issues before they affect your results



AT THE CORE OF QUALITY

QAPs™ Product Lines Intended Use

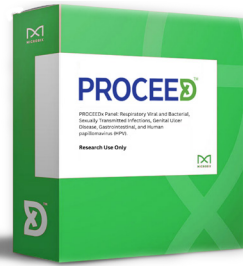


RED[®] controls RED[®]FLOQ[™]



REDx™ products are unassayed controls that can be used for ongoing external quality control, benchmarking laboratory testing performance, operator training & competency, and end-to-end workflow evaluation.

PROCEED[®] PROCEED[®]FLOQ[™]



PROCEEDx™ products are used for assay verification/validation, training, and R&D purposes. Products are for **RESEARCH USE ONLY!**

PTD[®]



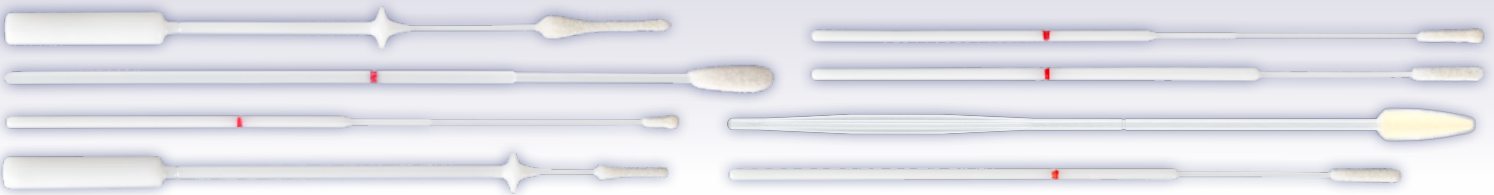
PTDx™ products are used as challenge samples in laboratory Proficiency Testing and External Quality Assessment programs.

ONBOARD[®] kit



ONBOARDx™ are all-encompassing sample kits for assay verification/validation, instrument qualification and operator training. Kits contain positive and negative samples from the **PROCEEDx™** product line. Products are for **RESEARCH USE ONLY!**

Copan Partnership



PANEL 1: SARS Complete Panel



SARS-CoV-2 Swab QAPs™

- » Stable for 2 years when stored at 2-30°C
- » SARS-CoV-2 Variants of Concern products are designed with all clade-specific SNPs, deletions, and insertions present

Products	PTDx™	PROCEEDx™FLOQ®	REDx™FLOQ®	Assay Compatibility
Single-Target Products				
SARS-CoV-2 Positive Swab	PT-S-19-01	VP-S-19-01	RED-S-19-01	MDx
Respiratory NAAT SARS-CoV-2 Positive Swab (Ultra Low)	PT-S-19-L1	VP-S-19-L1	–	MDx
SARS-CoV-2 Ag Positive Swab	PT-S-19-02	VP-S-19-02	RED-S-19-02	Immuno
SARS-CoV-2 B.1.1.7 Positive Swab	PT-S-19-03	VP-S-19-03	RED-S-19-03	MDx
SARS-CoV-2 B.1.351 Positive Swab	PT-S-19-04	VP-S-19-04	RED-S-19-04	MDx
SARS-CoV-2 P.1 Positive Swab	PT-S-19-05	VP-S-19-05	RED-S-19-05	MDx
SARS-CoV-2 B.1.617 Positive Swab	PT-S-19-06	VP-S-19-06	RED-S-19-06	MDx
SARS-CoV-2 B.1.1.529 Positive Swab	PT-S-19-07	VP-S-19-07	RED-S-19-07	MDx
Multi-Target Products				
SARS-CoV-2/FluA&B/RSV Positive Swab	PT-S-19-M1	VP-S-19-M1	RED-S-19-M1	MDx
Respiratory NAAT Influenza A & SARS-CoV-2 Positive Swab	PT-S-13-M4 ¹	VP-S-13-M4 ¹	RED-S-13-M4 ¹	MDx
Respiratory NAAT Influenza B & SARS-CoV-2 Positive Swab	PT-S-14-M3 ¹	VP-S-14-M3 ¹	RED-S-14-M3 ¹	MDx
Respiratory NAAT RSV & SARS-CoV-2 Positive Swab	PT-S-07-M2 ¹	VP-S-07-M2 ¹	RED-S-07-M2 ¹	MDx
Negative-Target Products				
SARS-CoV-2 Negative Swab (IVD) NAAT Negative Swab (RUO)	PT-S-99-M4	VP-S-99-M4	RED-S-99-M4	MDx
Respiratory Negative Swab (IVD) Negative Swab (RUO)	PT-S-99-01	VP-S-99-01	RED-S-99-01	Immuno

¹ Products are only for sale in Canada and the United States

SARS-CoV-2 Liquid QAPs™

- » Stable for 2 years when stored at 2-8°C; 0.5 mL volume

Products	PTDx™	PROCEEDx™	REDx™	Assay Compatibility
Single-Target Products				
SARS-CoV-2 Positive Sample	PT-19-01	VP-19-01	RED-19-01	MDx
Negative-Target Products				
SARS-CoV-2 Negative Sample	PT-99-M3	VP-99-M3	RED-99-M3	MDx

PANEL 2:
Respiratory Viral Panel



Respiratory Viral Swab QAPs™

» Swab formulations are stable for 2 years when stored at 2-30°C

Products	PTDx™	PROCEEDx™FLOQ®	REDx™FLOQ®	Assay Compatibility
Single-Target Products				
Influenza A Positive Swab	PT-S-13-01	VP-S-13-01	RED-S-13-01 ¹	MDx, Immuno
Influenza A NAAT Positive Swab	PT-S-13-M1	VP-S-13-M1	RED-S-13-M1 ¹	MDx
Influenza A NAAT Positive Swab (Low Level)	PT-S-13-M1L	VP-S-13- M1L	RED-S-13- M1L ¹	MDx
Influenza A NAAT Positive Swab (Ultra Low)	PT-S-13-L1	VP-S-13-L1	–	MDx
Influenza B Positive Swab	PT-S-14-01	VP-S-14-01	RED-S-14-01 ¹	MDx, Immuno
Influenza B NAAT Positive Swab	PT-S-14-M1	VP-S-14-M1	RED-S-14-M1 ¹	MDx
Influenza B NAAT Positive Swab (Low Level)	PT-S-14- M1L	VP-S-14- M1L	RED-S-14- M1L ¹	MDx
Influenza B NAAT Positive Swab (Ultra Low)	PT-S-14-L1	VP-S-14-L1	–	MDx
RSV Positive Swab	PT-S-07-01	VP-S-07-01	RED-S-07-01 ¹	MDx, Immuno
RSV NAAT Positive Swab	PT-S-07-M1	VP-S-07-M1	RED-S-07-M1 ¹	MDx
RSV NAAT Positive Swab (Low Level)	PT-S-07-M1L	VP-S-07- M1L	RED-S-07- M1L ¹	MDx
Respiratory NAAT RSV Positive Swab (Ultra Low)	PT-S-07-L1	VP-S-07-L1	–	MDx
Multi-Target Products				
Respiratory NAAT Influenza A and Influenza B Positive Swab	PT-S-13-M2	VP-S-13-M2	RED-S-13-M2 ¹	MDx
Respiratory NAAT Influenza A and RSV Positive Swab	PT-S-13-M3	VP-S-13-M3	RED-S-13-M3 ¹	MDx
Respiratory NAAT Influenza A and SARS-CoV-2 Positive Swab	PT-S-13-M4	VP-S-13-M4	RED-S-13-M4 ¹	MDx
Respiratory NAAT Influenza B and RSV Positive Swab	PT-S-14-M2	VP-S-14-M2	RED-S-14-M2 ¹	MDx
Respiratory NAAT Influenza B and SARS-CoV-2 Positive Swab	PT-S-14-M3	VP-S-14-M3	RED-S-14-M3 ¹	MDx
Respiratory NAAT RSV and SARS-CoV-2 Positive Swab	PT-S-07-M2	VP-S-07-M2	RED-S-07-M2 ¹	MDx
Negative-Target Products				
Respiratory Negative Swab (IVD) Negative Swab (RUO)	PT-S-99-01	VP-S-99-01	RED-S-99-01	Immuno
SARS-CoV-2 Negative Swab (IVD) NAAT Negative Swab (RUO)	PT-S-99-M4	VP-S-99-M4	RED-S-99-M4	MDx

¹ Products are only for sale in Canada and the United States

PANEL 2:
Respiratory Viral Panel



Respiratory Viral Liquid QAPs™

» Stable for up to 2 years when stored at 2-8°C; 1.0 mL volume

Products	PTDx™	PROCEEDx™	REDx™	Assay Compatibility
Single-Target Products				
Influenza A Positive Sample	PT-13-01	VP-13-01	RED-13-01 ²	MDx, Immuno
Influenza B Positive Sample	PT-14-01	VP-14-01	RED-14-01 ²	MDx, Immuno
Respiratory Syncytial Virus (RSV) Positive Sample	PT-07-01	VP-07-01	RED-07-01 ²	MDx, Immuno
Adenovirus Positive Sample	PT-15-01	VP-15-01	–	MDx ¹ , Immuno
Parainfluenza 3 Positive Sample	PT-10-M1	VP-10-M1	–	MDx
Multi-Target Products				
Influenza A + B Positive Sample	PT-13-02	VP-13-02	RED-13-02 ²	MDx, Immuno
Influenza A + RSV Positive Sample	PT-13-03	VP-13-03	–	MDx, Immuno
Influenza A + Adenovirus Positive Sample	PT-13-04	VP-13-04	–	MDx ¹ , Immuno
Influenza A + Rotavirus Positive Sample	PT-13-05	VP-13-05	–	MDx ¹ , Immuno
Influenza B + RSV Positive Sample	PT-14-02	VP-14-02	–	MDx ¹ , Immuno
Influenza B + Adenovirus Positive Sample	PT-14-03	VP-14-03	–	MDx ¹ , Immuno
Influenza B + Rotavirus Positive Sample	PT-14-04	VP-14-04	–	MDx ¹ , Immuno
Adenovirus + RSV Positive Sample	PT-07-02	VP-07-02	–	MDx ¹ , Immuno
RSV+ Rotavirus Positive Sample	PT-07-03	VP-07-03	–	MDx ¹ , Immuno
Adenovirus + Rotavirus Sample	PT-15-02	VP-15-02	–	MDx ¹ , Immuno
Negative-Target Products				
Negative Sample	PT-99-01	VP-99-01	–	Immuno
Negative Sample (MDx)	PT-99-M2	VP-99-M2	–	MDx, Immuno

¹ Products are QC-released with immunoassays but are also compatible with molecular assays

² Products are only for sale in Canada and the United States