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1. Description

This product is for research use only.

Components 1×100 µL IO Explore Probe Mix, human
 1×100 µL Control Probe Mix, human
 2× RNAsky Detection Plate

Capacity For two RNAsky Experiments in the MACSima™ System. Refer to the protocol for more information.

Storage Store protected from light at -20 °C. The expiration date is indicated on the vial label.

1.1 Background information

The RNAsky Assay enables spatial detection of RNA targets using the MACSima System. The MACSima System is a fully automated instrument capable of same-section high-plex protein and RNA detection using the MACSima Imaging Cyclic Staining (MICS) technology.

The RNAsky IO Explore Panel, human is designed for detection of targeted RNAs using the RNAsky Assay in the MACSima System. The IO Explore Probe Mix, human contains targeted probes for 21 immuno-oncology RNA targets. The Control Probe Mix, human contains positive and negative control probes. Both probe mixes are used during the preparation of the samples prior to the MACSima Experiment. The RNAsky Detection Plate is used to automatically stain the prepared samples in the MACSima System.

Gene target
Immune cell profiling
CD4
CD8A
CD3D
MS4A1
IGHG1/2/3/4
PTPRC
IGKC
Proliferation
MKI67
PCNA
Cell state
CDKN2A
MYC
ERBB2
TP53
EPCAM
GATA3
PTEN
VEGFA
KRAS
BCL2
EGFR
SMAD4

Table 1: RNA targets in the IO Probe Mix, human.

Gene target
Positive controls
VCP
PSMB4
Negative control
Negative control

Table 2: RNA targets in the Control Probe Mix, human.

1.2 Applications

Complementation of high-plex spatial protein analysis using the MACSima System with gene expression analysis for, e.g.,:

- Deep phenotyping, e.g., of the tumor immune microenvironment
- Drug target discovery and validation
- Biomarker research and discovery

1.3 Reagent and instrument requirements

- MACSima System (# 130-121-164)
- MACSima System Buffer (# 130-125-315)
- MACSwell™ Four Imaging Frames (# 130-124-676) or MACSwell One Small Imaging Frames (# 130-126-794)
- MACSwell HighRes Slides (# 130-126-799)
- RNAsky Sample Preparation Kit (# 130-134-682)
- RNAsky Support Kit (# 130-134-684)

2. Protocol

The detailed protocol for the preparation of FFPE tissue samples before molecular preparation and subsequent RNA detection on the MACSima System using RNAsky is available at www.miltenyibiotec.com/RNAsky-sample-prep-FFPE.

The detailed protocol for molecular preparation of samples for RNA detection on the MACSima Platform using RNAsky is available at www.miltenyibiotec.com/RNAsky-user-guide.

Refer to www.miltenyibiotec.com for all data sheets and protocols. Miltenyi Biotec provides technical support worldwide. Visit www.miltenyibiotec.com for local Miltenyi Biotec Technical Support contact information.

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