

CK-19 LC Kit

OL10100

A sensitive and reliable tumor marker for epithelial circulating tumor cells (CTCs)

A new age of personalized cancer care begun with the introduction of the “Liquid Biopsy” concept. Novel blood tests detect cancer cells, tumor-associated cells and immune cells in the circulation and provide a non-invasive real-time picture of a patient’s malignant disease. The tests enable therapy monitoring

and post-therapeutic surveillance of recurrence. Blood-based biopsy diagnostics is a mix of high-tech technology and cutting edge medical procedures and offers new ways for selection of the right drug for the right patient at the right time – all through a simple blood draw.

Cytokeratin 19 (CK-19) is a general marker of epithelial cells that is strongly expressed in epithelial but not in mesenchymal cells. Increased expression is seen during epithelial embryogenesis, tissue regeneration, tissue repair, tissue development and carcinogenesis.

cancerous epithelial cells. It is expressed in 90% of breast carcinomas and thus, has been extensively used for the detection of breast cancer cells in mesenchymal tissues. It is probably the most sensitive and reliable tumor marker for the detection of CTCs in patients with breast cancer. The CK-19 Kit is one of OncoLab’s innovative products for the detection and molecular characterization of CTCs. This RT-qPCR-based test enables the quantification of CK-19 mRNA in RNA samples.

CK-19 has been extensively studied as a potential marker for the detection of circulating tumor cells (CTCs) in a variety of epithelial cancers. It is a cytoskeletal component present in normal and

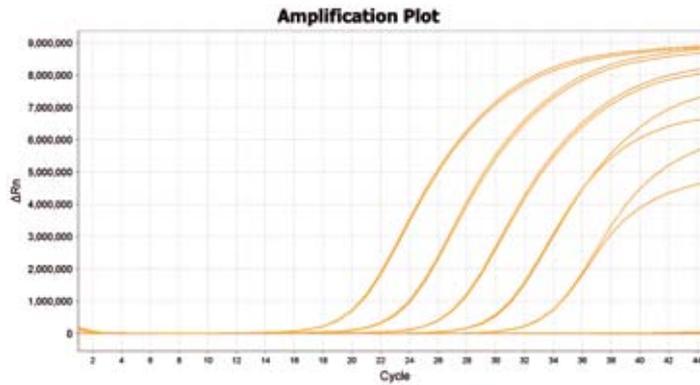
MATERIALS PROVIDED

Materials provided	24 tests	Kit sizes 48 tests	96 tests	color code
Positive Control	1x 48 µl	2x 48 µl	4x 48 µl	Red
Negative Control	1x200 µl	2x200 µl	4x200 µl	Blue
One-Step Reaction Mix (2x)	1x240 µl	2x240 µl	4x240 µl	Green
Primer & Probe Mix	1x 48 µl	2x 48 µl	4x 48 µl	Purple

One-Step RT-qPCR is a fast and convenient method for RNA detection. The Reaction Mix, supplied in 2X concentration, contains a reverse transcriptase and a hot-start DNA polymerase in combination with optimized buffer components. The reverse transcriptase is compatible with various RNA sample types, such as total RNA or poly(A)-RNA. The cDNA is consequently amplified by a DNA polymerase, enabling RNA quantification, all in one tube. The Reaction Mix also contains Uracil N-Glycosylase (UNG) which prevents carry-

over contamination by degrading the amplification products from previous reactions.

The included Primer & Probe Mix contains primers and hybridization probes specific for Cytokeratin-19 (CK-19) and GAPDH. CK-19 is a type I cytokeratin found mostly in epithelial tissues with high plasticity such as stem cells, transforming cells or tumorous cells. In addition, CK-19 can also be found in circulating tumor cells in peripheral blood. The addition of GAPDH serves as an internal control since it should be present in almost all tissues and cell types.



ADDITIONAL MATERIALS REQUIRED



- RNA template
- Microcentrifuge tubes (for reaction setup)
- PCR tubes or PCR plates, including seals
- LightCycler® 480 system or equivalent PCR instrument
- Color Compensation CK-19 610-670 Kit (OL0010006)
- Standard laboratory equipment

This product is not for diagnostic use.

Order Information:

CK-19 LC Kit (24 tests)	OL1010024
CK-19 LC Kit (48 tests)	OL1010048
CK-19 LC Kit (96 tests)	OL1010096
Color Compensation CK-19 610-670 Kit	OL0010006



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