

Improved Accuracy of Non-Small Cell Lung Cancer Phenotyping through Uniplex Staining Technology

Uniplex IHC - Aiding in Non-Small Cell Lung Cancer Phenotyping

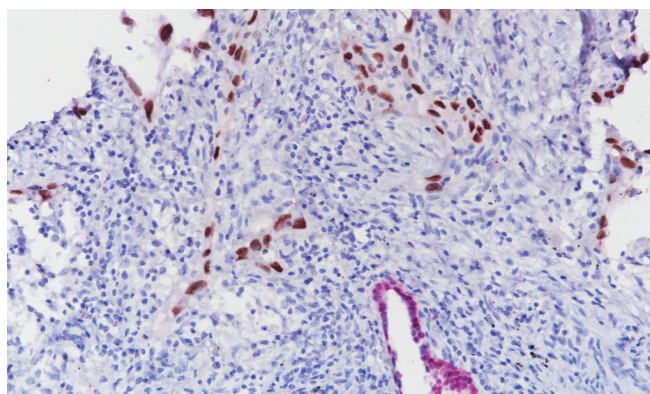
As new discoveries and innovations continue to shape the diagnostics industry, the use of molecular testing to supplement IHC results has become increasingly popular. This industry shift has created a greater need to conserve tissue for additional testing, as is the case when diagnosing non-small cell lung cancers. Non-small cell lung cancer can be classified into several types. The two main types are Lung Adenocarcinomas (LADC) and Squamous Cell Carcinomas (SqCC) and can be differentiated by up to 6 distinct markers.

Key Markers for LADC & SqCC

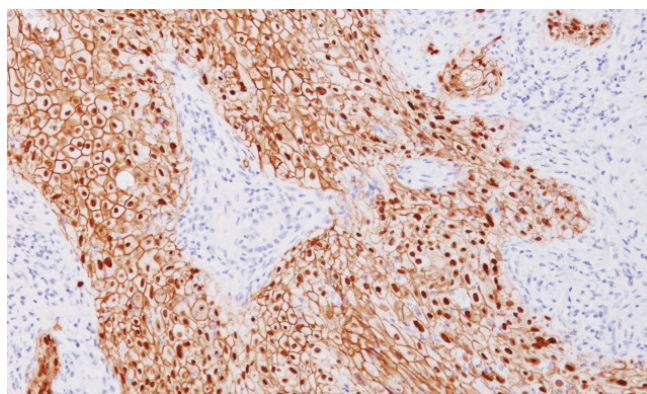
- p40
- CK5
- p63
- Desmoglein 3
- TTF-1
- Napsin A

Studies have shown that a panel of the DSG3, p40, and TTF-1 markers is the most specific and sensitive method to distinguish between the two. However, utilizing multiple antibodies with a common species of origin creates problems for traditional simultaneous IHC multiplex.

To match the highest standards of accuracy while still conserving precious tissue, Biocare has developed an IHC assay utilizing a novel uniplex cocktail of DSG3 + p40, stained with DAB, sequentially followed by TTF-1, stained with Fast Red. Designed for use on a single tissue section, this method combines the tissue preservation of a multiplex procedure with the specificity and sensitivity of a full staining panel.



Poorly differentiated LADC: negative TTF-1 p40 positive reclassified by IHC to lung SqCC



Lung squamous cell carcinoma stained with Desmoglein 3 + p40

In a study of previously diagnosed archival whole tissue lung cancer cases, staining with Biocare's DSG3 + p40 uniplex cocktail and TTF-1 resulted in 4% or 1 out of every 25 cases being reevaluated and/or reclassified under a different diagnosis.

With each cancer type having its own targeted therapy, even the smallest differences in testing sensitivity can lead to divergent treatment plans with dramatically different outcomes. Biocare's DSG3 + p40 and TTF-1 IHC assay greatly improves the accuracy of crucial lung tumor phenotyping while conserving tissue for molecular or target therapeutic testing.

To learn more about how Biocare's Uniplex cocktails may aid in helping improve the accuracy of non-small cell lung cancer testing, please call 800-799-9499 or go online: www.biocare.net.