Biomarker Datasheet

Human CD15 U-VUE® Biomarker

CD15 is a cluster of cell surface glycoproteins and glycolipids, also known as 3-fucosyl-N-acetyl-lactosamine or Lewis X. CD15 is a carbohydrate adhesion molecule that functions in cell-to-cell recognition processes. It is a distinguishing marker for human myeloid cells and mediates neutrophil adhesion to dendritic cells. Several studies have shown that CD15 expression is associated with prognosis and survival in a variety of cancers, such as breast cancer and Hodgkin's lymphoma.

Overview

Target	Other names	Isotype	Primary cell type	Subcellular location	Positive control(s)
CD15	X-hapten	Mouse IgM	Myeloid-derived cells (i.e., mature monocytes/ macrophages	Plasma membrane	Tonsil, Spleen, Colon

*Clone available upon request

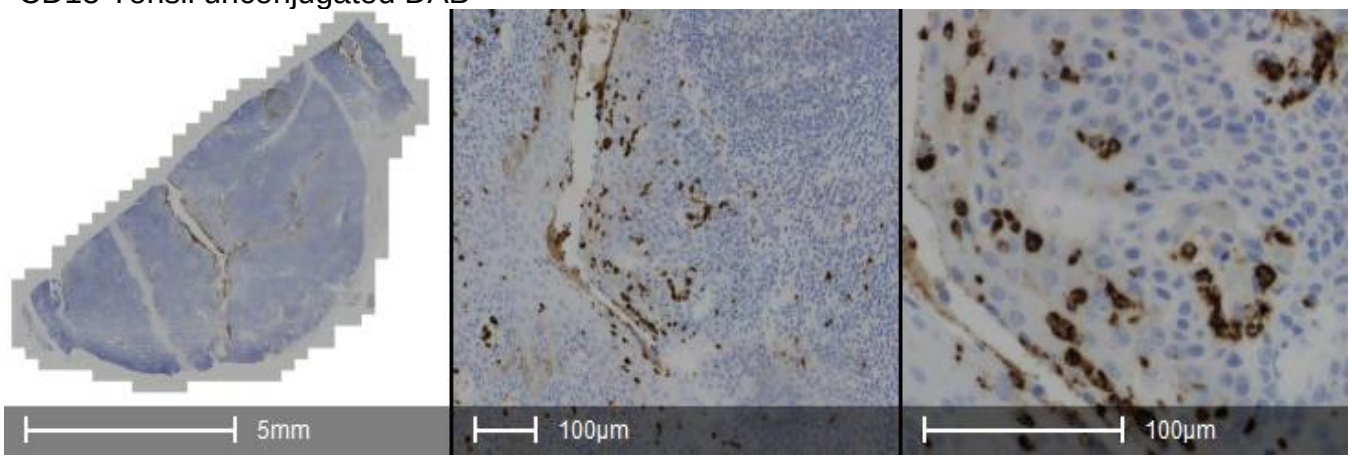
Quality Control

Each lot of antibody conjugate reagent is tested on positive control tissue and reviewed by reviewed by Ultivue's pathologists and scientists to ensure appropriate staining pattern and signal intensity by both qualitative and quantitative review.

Predicate Comparison

Serial sections of tonsil and tumor tissue controls were stained with traditional chromogenic DAB using unconjugated antibodies and with the InSituPlex® (ISP) monoplex assay to demonstrate concordance between staining modalities.

CD15 Tonsil unconjugated DAB



CD15 Tonsil ISP

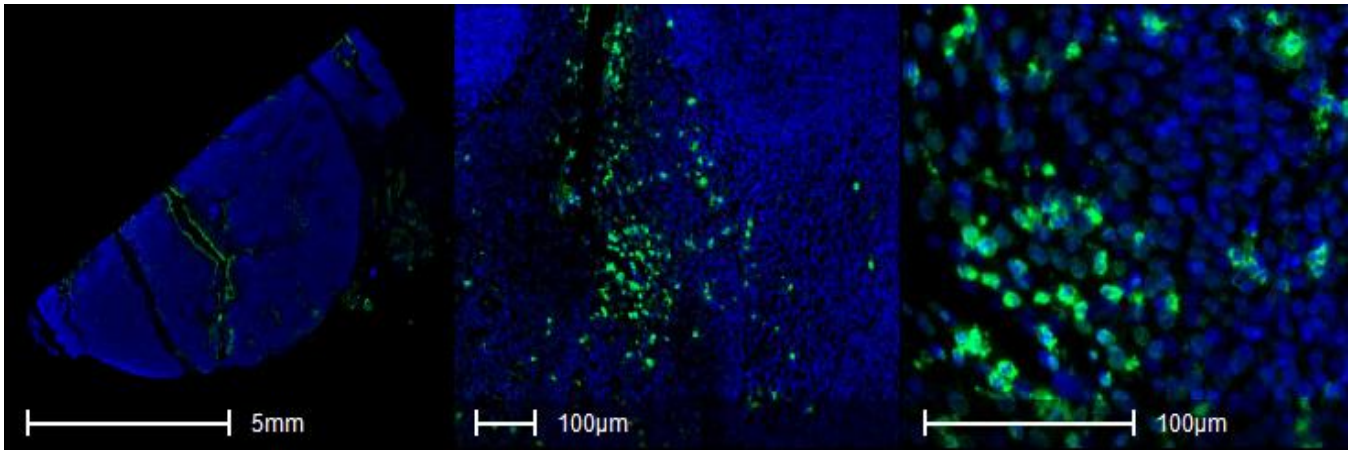


Figure 1: Comparison of unconjugated DAB and InSituPlex® monoplex assay in tonsil tissue. Chromogenic DAB (top panel), fluorescent ISP staining (bottom panel).

Assay Reproducibility

An InSituPlex® monoplex assay was performed across serial sections of tonsil and non-small cell lung carcinoma (NSCLC) tissue on the Leica BOND RX autostainer. Staining was found to be qualitatively and quantitatively equivalent across all slides in the run as demonstrated by coefficient of variance (CV) of positive cell density and signal intensity.

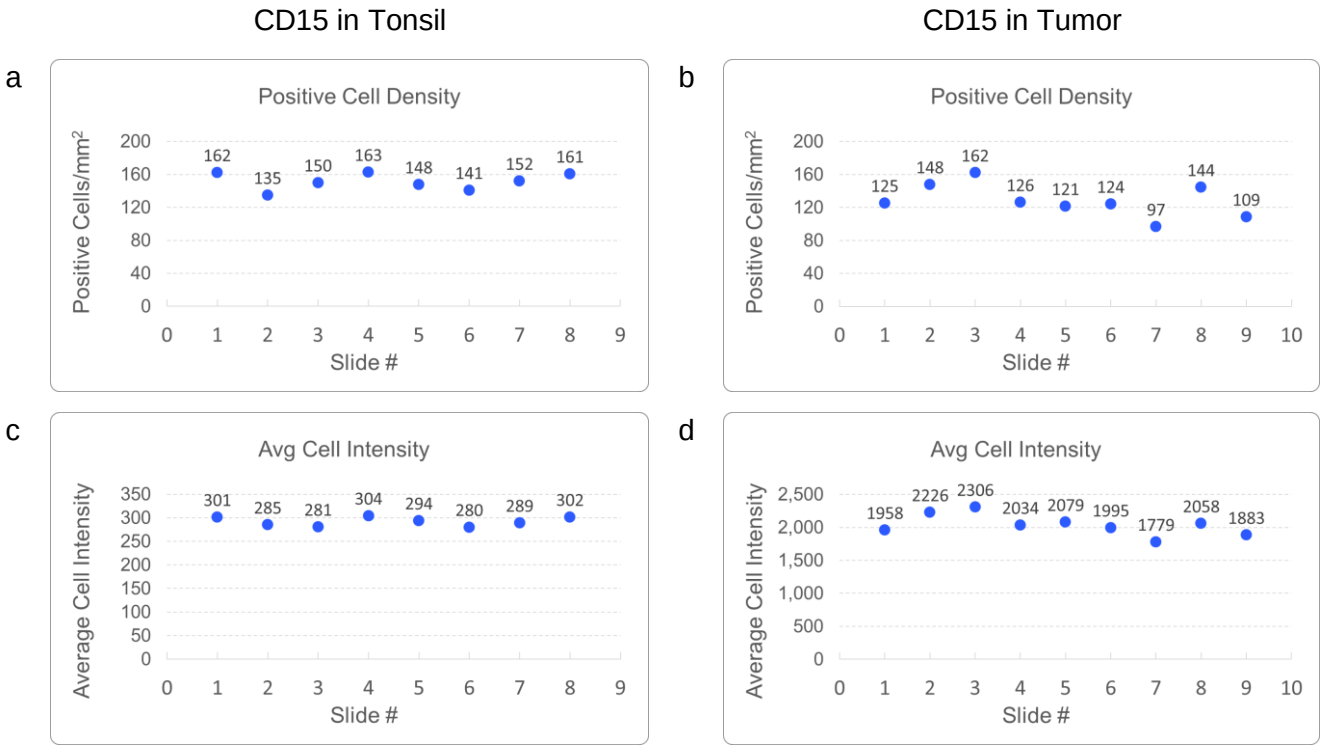


Figure 2: a. Number of positive cells/mm^2 per slide on tonsil tissue. Inter-slide coefficient of variance (CV) =6.3% **b.** Number of positive cells/mm^2 per slide on NSCLC tissue. Inter-slide CV = 14.8% **c.** Mean positive signal intensity per slide on tonsil tissue. Inter-slide CV = 3.3%. **d.** Mean positive signal intensity per slide on NSCLC tissue. Inter-slide CV = 7.5%.

References

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