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KAPP-Sen TMC: 10x Xenium Prime with Segmentation Kit

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Cellular Senescence Net... KAPP-Sen TMC

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Protocol status: Working
We use this protocol and it's working

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Abstract

This protocol describes the preparation, staining, and in situ spatial transcriptomic analysis of tissue sections using an integrated 10x Genomics workflow. Standardized procedures were followed for tissue processing, slide preparation, and staining to ensure consistency and quality. The 10x Genomics Xenium platform was employed for high-resolution spatial gene expression profiling, enabling detailed molecular characterization of tissue architecture. The analysis utilized the Xenium Segmentation Kit for accurate cell segmentation, the 5k Standard Human Gene Panel for broad transcriptomic coverage, and an additional 100-gene add-on panel to enhance detection of specific targets of interest.

Section preparation

1 Block handling, QC, and sectioning were performed according to **CG000758 Rev E**.

2 After sectioning, slides were placed in a slide drying rack and baked at 42°C for 3 hours, then placed in a desiccator at room temperature overnight.

Xenium In Situ

3 The assay was performed following Deparaffinization & Crosslinking according to **CG000758 Rev E**, section 4, immediately followed by probe priming, polishing, hybridization, ligation, and amplification according to **CG000760 Rev C**, then cell segmentation staining and quenching according to the same protocol.

4 The Xenium Analyzer was utilized according to **CG000584 Rev J**.