

Resource Summary Report

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Quantitative analysis method of mRNA expression using dual RNA in situ hybridization by comparison with housekeeping genes

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Protocol Information

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Summary: In retrospective formalin-fixed paraffin-embedded (FFPE) samples, RNA quality of FFPE tissues showed variation following the storage period and fixation process. So we suggest quantitative analysis by dual detection of target mRNA and housekeeping genes in one section and calculated the target gene/housekeeping gene ratio by two open-source image analysis programs. This assay potentially allows for reliable quantification of mRNA expression levels in retrospective FFPE samples.

Associated Publications: Seung B, Cho S, Kim S, Lim H, Sur J (2020) Quantitative analysis of *HER2* mRNA expression by RNA *in situ* hybridization in canine mammary gland tumors: Comparison with immunohistochemistry analysis. PLoS ONE 15(2): e0229031. doi: [10.1371/journal.pone.0229031](https://doi.org/10.1371/journal.pone.0229031)

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