

A New RAS G12D Specific Rabbit Polyclonal Antibody for Immunohistochemical FFPE Application

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Background

Determining RAS mutation status is considered as prognostic factor for colorectal cancer patients in anti-epidermal growth factor receptor(EGFR) antibody therapy. Because genetic testing remains costly and time consuming, it is necessary to develop mutation specific antibody for immunological analysis. However RAS G12D mutation antibody for immunohistochemical staining is not available till now. Here we report a novel RAS G12D rabbit polyclonal antibody (GTX132407) for immunochemistry (IHC) testing, which was developed by cooperating with GeneTex In. Based on analyzing 15 clinical colorectal cancer specimens, the result of IHC staining using RAS G12D mutation specific antibody(GTX132407) was correlated with genetic testing of RASG12D mutation using ultrasensitive total RAS mutation screen kit [Hong Jing Biotechnology Inc. (FemtoPath)].

Material and Method

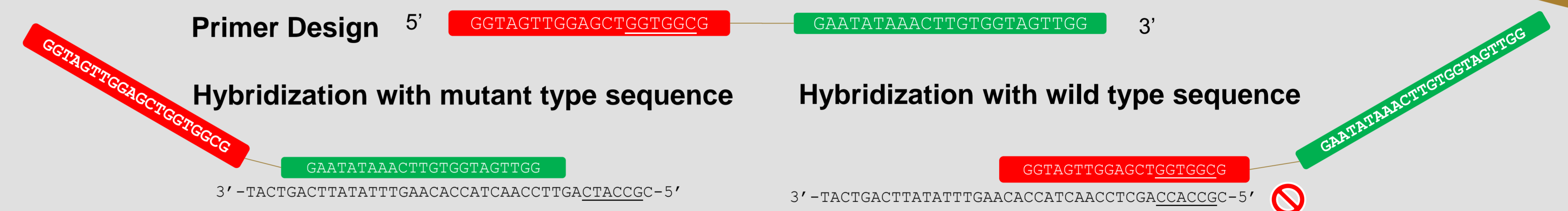
Immunohistochemistry:

Tissues: formalin-fixed and paraffin embedded (FFPE) human tumor tissues. RAS G12D mutation was determined by FemtoPath (Patent No. P2708-TW) mutation analysis.

Antibodies: RAS G12D (GTX132407, GeneTex Inc.)

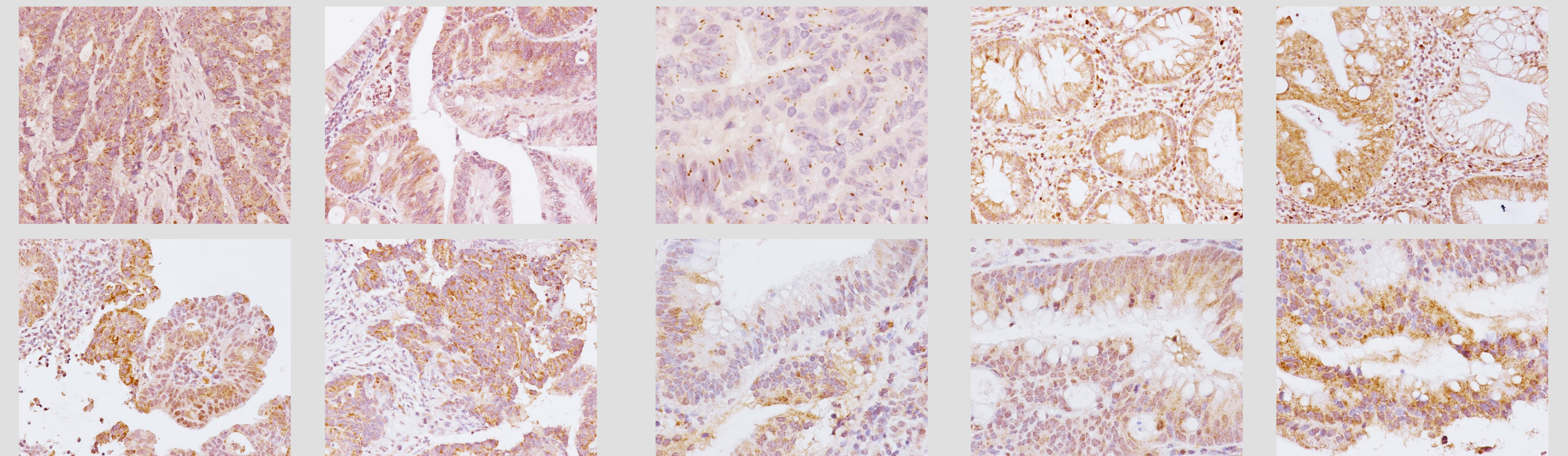
Detection systems: OptiView DAB IHC Detection Kit on BenchMark XT fully automated IHC/ISH staining instrument (Ventana Medical Systems, Inc.)

Principle of FemtoPath



Result

RAS G12D Antibody Staining in Human colorectal cancer with G12D Mutation



Conclusions

The result showed that IHC testing with RASG12D specific mutation antibody could be a reliable tool for predicting RAS genetic mutation status.