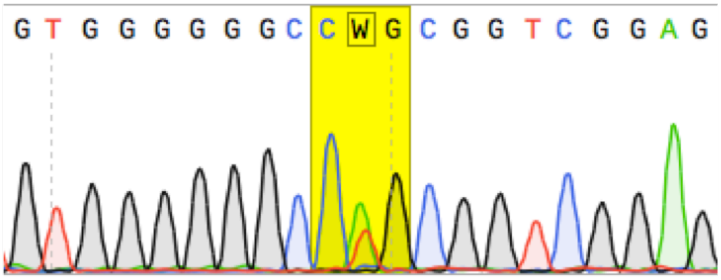
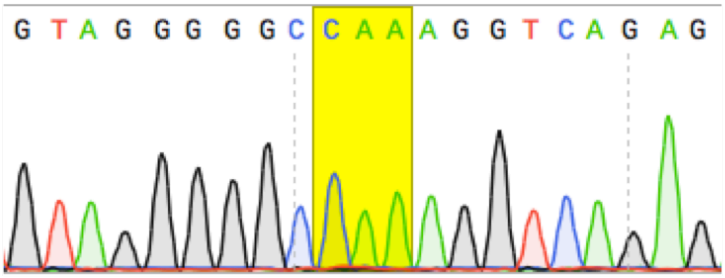
GNA11



CAG → CTG
Q209 → L209

GNAQ



Wild-type

Figure S1. UM002B cells contain a Gα11-Q209L mutation. Genomic DNA was purified using the Wizard® Genomic DNA Purification Kit (Promega). The following combination of PCR primers and Phusion DNA Polymerase (Thermo Scientific) was used to screen mutations: for the *GNA11* target, 5'-CTCTTCCTGCTCCAGCCGATG-3' and 5'-GGAAGAGGATGACGGAGGAGT-3'; for the *GNAQ* target, 5'-CCATCATGATGTGTTACCCAG-3' and 5'-CTGACAGAAGAGCTTACCACAG-3'. PCR conditions were 98 °C for 2 min, followed by 40 cycles of 98 °C for 10 s, 65.9 °C (*GNA11*) or 61.6 °C (*GNAQ*) for 30 s, and 72 °C for 30 s, followed by 72 °C for 10 min. PCR product was applied on 1% agarose gel containing ethidium bromide and subjected to electrophoresis and single DNA bands (~500 bp) were visualized under ultraviolet light. DNA was extracted by QIAquick® Gel Extraction Kit (Qiagen) and sequence was confirmed by DNA sequencing.