

a

Lane1: 100bp ladder

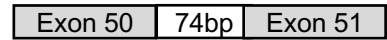
Lane2-3: Mut1/Mut2

Lane4-6: WT, 858bp

Mutation1: insert 74bp

Mutation2: 109bp deletion

Mutation 1



Mutation 2

**b****WT**

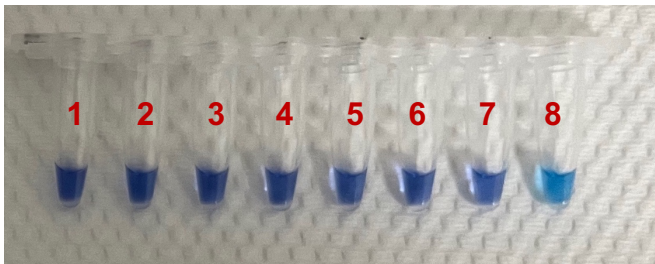
...KKTAALQSATPVERVKLQEALSQLDFQWEKVNKMYKDRQGRFDRSVEKWRRFHYDIKIFNQWLTEAEQFLR
 KTQIPENWEHAKYKWYLKELQDGIGQRQTVVRTLNATGEEIIQQSSKTDASILQEKLGSLNLRWQEVCKQLSDR
 KKRLEEQKNILSEFQRDLNEFVLWLEEADNIASIPLEPGKEQQLKEKLEQVKLLVEELPLRQGILKQLNETGGPVL
 VSAPISPEEQDKLENKQTNLQWIKVSRALPEKQGEIEAQIKDLGQLEKKLEDLEEQLNHLLLWLSPIRNQLEIYN
 QPNQEGPFDVK**ETEIAVQAKQPDVEEILSKGQHLYKEKPATQPVK**RKLEDLSSEWKAVNRLLQELRAKQPD**LAP**
GLTTIGASPTQTVTLVTPVVKETAISKLEMPSSLMLEVPALADFNRAWTELTDWLSLLDQVIKSQRVMVGDLE
DINEMIIKQKATMQDLEQRRPQLEELITAAQNLNKNTSNQEARTIITDRIERIQN...*

Mutation1

...KKTAALQSATPVERVKLQEALSQLDFQWEKVNKMYKDRQGRFDRSVEKWRRFHYDIKIFNQWLTEAEQFLR
 KTQIPENWEHAKYKWYLKELQDGIGQRQTVVRTLNATGEEIIQQSSKTDASILQEKLGSLNLRWQEVCKQLSDR
 KKRLEEQKNILSEFQRDLNEFVLWLEEADNIASIPLEPGKEQQLKEKLEQVKLLVEELPLRQGILKQLNETGGPVL
 VSAPISPEEQDKLENKQTNLQWIKVSRALPEKQGEIEAQIKDLGQLEKKLEDLEEQLNHLLLWLSPIRNQLEIYN
 QPNQEGPFDVK**ETEIAVQAKQPDVEEILSKGQHLYKEKPATQPVK**RKLEDLSSEWKAVNRLLQELRAKQPD**LAP**
GLTTIGA **CKYTGSHSLWL**

Mutation2

...KKTAALQSATPVERVKLQEALSQLDFQWEKVNKMYKDRQGRFDRSVEKWRRFHYDIKIFNQWLTEAEQFLR
 KTQIPENWEHAKYKWYLKELQDGIGQRQTVVRTLNATGEEIIQQSSKTDASILQEKLGSLNLRWQEVCKQLSDR
 KKRLEEQKNILSEFQRDLNEFVLWLEEADNIASIPLEPGKEQQLKEKLEQVKLLVEELPLRQGILKQLNETGGPVL
 VSAPISPEEQDKLENKQTNLQWIKVSRALPEKQGEIEAQIKDLGQLEKKLEDLEEQLNHLLLWLSPIRNQLEIYN
 QPNQEGPFDVKE**TEIAVQAKQPDVEEILSKGQHLYKEKPATQPVK**LLLRLLW*****

c

Lane1-4: ΔEx50 cell

Lane5-7: Negative control

Lane8: Positive control

Blue : Positive;

Purple : Negative