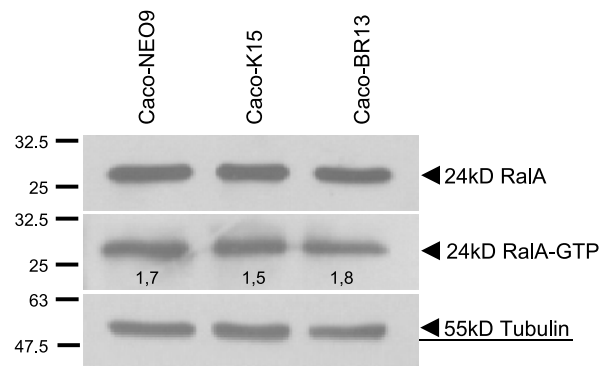


**Figure W1.** RT-PCR analysis of mRNA levels for RKIP, the negative regulator of pERK. Results were consistent among three independent experiments.



**Figure W2.** RAS effector pathway Ral expression analysis and activation by GST pull-down assay in Caco-K and Caco-BR cells. Results were consistent among three independent experiments.

**Table W1.** Primers Used for RT-PCR.

| Primers                  | Sequence  | °C (No. of Cycles) | Size (bp) | Reference |
|--------------------------|---|--------------------|-----------|-----------|
| p19 <sup>Arf</sup>       | F: 5'-CCCTCGTGCTGATGCTACTGA-3'<br>R: 5'-ACCACCAGCGTGTCCAGGAA-3'     | 56 (35)            | 200       | [60]      |
| p15 <sup>Ink4b</sup>     | F: 5'-AGGGATATTAGGAGTGTGTGAC-3'<br>R: 5'-CCATCGGAAGATTCCGTAGCC-3'   | 60 (30)            | 114       | [60]      |
| p19 <sup>Ink4d</sup>     | F: 5'-CAGTTTGTGGCTTATAGGTG-3'<br>R: 5'-CCCTTCTCTGTCCAACAC-3'        | 56 (30)            | 101       | [60]      |
| p21 <sup>Cip1/Waf1</sup> | F: 5'-GGAAGACCATGTGGACCTGT-3'<br>R: 5'-GGCGTTTGGAGTGGTAGAAA-3'      | 59 (32)            | 146       | [60]      |
| p27 <sup>Kip1</sup>      | F: 5'-CCACGAAGAGTTAACCCGGG-3'<br>R: 5'-GTCTGCTCCACAGAACCGGC-3'      | 60 (35)            | 450       | [60]      |
| p57 <sup>Kip2</sup>      | F: 5'-CTGACCAGCTGCACTCGGGGATTC-3'<br>R: 5'-GCCGCCGGTTGCTGTACATGA-3' | 60 (35)            | 424       | [60]      |
| Cyclin D1                | F: 5'-CTTCCTCTCCAAAATGCCAG-3'<br>R: 5'-AGAGATGGAAGGGGAAAGA-3'       | 58 (28)            | 717       | [60]      |
| Cyclin D3                | F: 5'-ACTGGATGCTGGAGGTATGT-3'<br>R: 5'-GACAGGTAGCGATCCAGGTA-3'      | 57 (35)            | 85        | [60]      |
| Cyclin E1                | F: 5'-TGGGCAAATAGAGAGGAAGTC-3'<br>R: 5'-GCACCACTGATACCTGAA-3'       | 58 (28)            | 639       | [60]      |
| RKIP                     | F: 5'-TCATTTCTGGTGGTCAAC-3'<br>R: 5'-CCTGTCTGCTCGTAAAC-3'           | 55 (28)            | 133       | [60]      |
| KSR                      | F: 5'-CCTTCCTGCCACTAACTC_3'<br>R: 5'-GGGTGCTCCTTCTTTGTC-3'          | 56 (30)            | 210       | [60]      |
| Ku70                     | F: 5'-GATGCACCTGAAGAAACCTG-3'<br>R: 5'-GATTCTCTCAAAGTGAACCT-3'      | 58 (30)            | 101       | [60]      |
| XPC                      | F: 5'-CCCAGCCGCTTTACCA-3'<br>R: 5'-TGCATTAAGTAAATGTTCCAATGA-3'      | 60 (28)            | 97        | [60]      |
| ERCC1-variant 1          | F: 5'-TGACCACATTTGGATCTCTG-3'<br>R: 5'-CAACTCCTTGGGTTCTTTCC-3'      |                    | 114       | [60]      |
| ERCC3                    | F: 5'-TGCCATTTCTAAGACTGCTG-3'<br>R: 5'-TTCATCCTTGTCCATTTGCT-3'      | 60 (28)            | 123       | [60]      |
| GAPDH                    | F: 5'-GAAGTGAAGGTCGGAGT-3'<br>R: 5'-CATGGGTGGAATCATATTGGAA-3'       | 58 (28)            | 155       | [60]      |

**Table W2.** Allelic Peaks (bp).

| Cell Line | MSI Loci | Peak 1 | Peak 2 | Peak 3 |
|-----------|----------|--------|--------|--------|
| Caco-BR13 | BAT-25   | 118    | 119    |        |
| Caco-BR23 | BAT-25   | 119    | 120    |        |
| Caco-2    | BAT-25   | 122    | 123    |        |
| DLD-1     | BAT-25   | 118    | 119    |        |
| HCT116    | BAT-25   | 117    | 118    |        |
| Caco-BR13 | BAT-26   | 107    | 108    |        |
| Caco-BR23 | BAT-26   | 108    | 109    |        |
| Caco-2    | BAT-26   | 111    | 112    |        |
| DLD-1     | BAT-26   | 108    | 109    |        |
| HCT116    | BAT-26   | 98     | 99     |        |
| Caco-BR13 | NR-21    | 89     | 90     | 91     |
| Caco-BR23 | NR-21    | 90     | 91     | 92     |
| Caco-2    | NR-21    | 95     | 96     | 96     |
| DLD-1     | NR-21    | 89     | 90     | 91     |
| HCT116    | NR-21    | 88     | 89     | 90     |
| Caco-BR13 | NR-22    | 131    | 132    | 133    |
| Caco-BR23 | NR-22    | 131    | 132    | 133    |
| Caco-2    | NR-22    | 135    | 136    |        |
| DLD-1     | NR-22    | 131    | 132    | 133    |
| HCT116    | NR-22    | 129    | 130    | 131    |
| Caco-BR13 | NR-24    | 119    | 120    | 121    |
| Caco-BR23 | NR-24    | 120    | 121    | 122    |
| Caco-2    | NR-24    | 124    | 125    | 126    |
| DLD-1     | NR-24    | 118    | 119    | 120    |
| HCT116    | NR-24    | 117    | 118    | 119    |