**Supplementary file 4.** **List of primer sets used.**

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| Purpose | Forward Primer (5’->3’) | Reverse Primer (5’->3’) |
| RARRES3 sgRNA #1 cloning | CACCGtgagtaccaaccacggcccg | AAACcgggccgtggttggtactcaC |
| RARRES3 sgRNA #2 cloning | CACCGcgtagccatctcctatatac | AAACgtatataggagatggctacgC |
| RARRES3 genomic amplification | AGTGAGAGTGCCTCTGATTGC | ACTCTCAGCCAGCAGGTCTC |
| STAT1 sgRNA cloning | CACCAAAAGAGGTCTCAATG | AAACCATTGAGACCTCTTTTC |
| STAT1 genomic amplification | CATGGCGCTAAATAGGCTTC | ATATGAGACAATGAGGAACGGA |
| Nontargeting sgRNA cloning | CACCGGTATTACTGATATTGGTGGG | AAACCCCACCAATATCAGTAATAC |
| IDO1 sgRNA cloning | CACCGATCCCAGAACTAGACGTGCA | AAACTGCACGTCTAGTTCTGGGATC |
| Cas9 resistant RARRES3 fragment 1 | CAGCTTGGACCAtgaatatcaacctcgccctgtggaggtgatcatcag | ctgatgatcacctccacagggcgaggttgatattcaTGGTCCAAGCTG |
| Cas9 resistant RARRES3 fragment 2 | CAGCTTGGACCAtgaatatcaacctcgccctgtggaggtgatcatcag | ggggaccactttgtacaagaaagctgggttTCAGGCTGTTGCTTTTTTTTGG |
| WT V5-RARRES3 | ggggacaagtttgtacaaaaaagcaggcttcaccATGGGCAAGCCCATCCCCAACCCCCTGCTGGGCCTGGACAGCACCGCTTCGCCACACCAA | ggggaccactttgtacaagaaagctgggttTCAGGCTGTTGCTTTTTTTTGG |
| V5-RARRES3 C113A fragment 1 | ggggacaagtttgtacaaaaaagcaggcttcaccATGGGCAAGCCCATCCCCAACCCCCTGCTGGGCCTGGACAGCACCGCTTCGCCACACCAA | CAAAGTGCTCAGCGTTCCTGCTC |
| V5-RARRES3 C113A fragment 2 | GAGCAGGAACGCTGAGCACTTTG | ggggaccactttgtacaagaaagctgggttTCAGGCTGTTGCTTTTTTTTGG |
| V5-RARRES3 C113S fragment 1 | ggggacaagtttgtacaaaaaagcaggcttcaccATGGGCAAGCCCATCCCCAACCCCCTGCTGGGCCTGGACAGCACCGCTTCGCCACACCAA | caaagtgctcagagttcctgctc |
| V5-RARRES3 C113S fragment 2 | gagcaggaactctgagcactttg | ggggaccactttgtacaagaaagctgggttTCAGGCTGTTGCTTTTTTTTGG |