**Supplementary Table S1**

Analyzed SNPs involved in vitamin D transport, metabolism and signaling. Overview on their functional significance and primer sequences

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| --- | --- | --- | --- | --- | --- | --- | --- |
| **Gene** | **rs number** | **Location of polymorphism** | **Allele** | **\*MAF** | **Function or clinical association** | **Forward primer** | **Reverse primer** |
| GC | rs4588 | Exon | C/A | 0.25 | Missense, amino acid  Change Thr->Lys | AGACTGGCAGAGCGACTAAA | TCACAGTAAAGAGGAGGTGAGT |
| CYP24A1 | rs2296241 | Exon | G/A | 0.47 | Splicing regulation | CTTCAACGTGGCCTCTTTCA | GCAAGACCTGAAGTTAGCTCAG |
| CYP27B1 | rs703842 | 3’-UTR | A/G | 0.25 | Transcriptional regulation | TACAAGATCCCGTCCTCCAG | TCTCAGCTCCAGCAGTCTCA |
| VDR | rs731236 | Exon | A/G | 0.40 | Splicing regulation | TGAGAGCTCCTGTGCCTTCT | TCATCTTGGCATAGAGCAGGT |
| DKK1 | rs2241529 | Exon | G/A | 0.46 | Transcriptional regulation, potential Splicing regulation | CGCAGAGGACGAGGAGTG | TTTTGCAGTAATTCCCGGGG |
| CST5 | rs1799841 | Exon | G/A | 0.45 | Missense, amino acid change Cys->Arg | CCCAATCTAGGACCTTGGCA | GCGGCTGTAGTACTCATCCT |

\*MAF: Minor allele frequency based on literature (uswest.ensembl.org)