

WES HEART DISORDERS* DG 2.15

<i>Gene</i>	<i>Median coverage</i>	<i>% covered >10x</i>	<i>% covered >20x</i>	<i>OMIM disease ID</i>
ABCC6	116.4	93.6	92.6	614473
ABCC9	157.9	99.9	99.2	614050
ACAD8	141.5	100.0	100.0	611283
ACAD9	135.2	98.4	95.7	611126
ACADVL	118.8	98.7	95.1	201475
ACSF3	128.8	99.9	99.3	614265
ACTA2	137.6	100.0	99.8	611788
ACTC1	164.1	100.0	99.6	612794
ACTN2	156.3	100.0	100.0	102573
ACVR1	165.1	100.0	100.0	135100
ACVR2B	140.5	97.1	94.7	613751
ADCY5	129.2	92.3	89.1	606703
AGK	112.1	99.3	96.4	614691;212350
AGL	146.7	99.7	98.0	232400
AGPAT2	109.5	99.0	95.1	608594
AKAP9	98.0	98.3	94.2	611820
ALDH1A2	114.8	100.0	99.6	603687
ALMS1	179.8	99.9	99.7	203800
ALPK3	98.7	94.6	92.5	618052
ANK2	160.3	100.0	99.9	600919
ANKRD1	101.7	99.5	96.8	609599
ATPAF2	101.4	100.0	100.0	604273
BAG3	136.5	100.0	100.0	613881
BANF1	58.3	98.0	88.1	614008
BGN	128.9	100.0	99.5	300989300106

BSCL2	113.5	100.0	100.0	269700
BVES	115.0	99.8	98.2	616812
CACNA1C	154.6	99.9	99.2	611875
CACNA1D	149.9	98.0	97.8	614896
CACNA2D1	82.7	93.1	84.4	114204
CACNB2	150.9	99.5	96.9	611876
CALM1	114.3	100.0	99.7	614916
CALM2	54.0	67.8	65.8	114182
CALM3	117.4	99.9	99.5	114183
CASQ2	143.3	99.9	99.2	611938
CAV1	265.4	100.0	100.0	612526606721615343
CAV3	304.7	100.0	100.0	192600607801
CAVIN4	159.5	100.0	100.0	-
CDH2	137.5	98.4	97.5	-
CFAP53	146.6	97.6	94.2	614779
CFC1	74.5	82.7	71.3	217095605376613853
CHD7	150.7	99.9	98.9	214800
CHKB	98.5	100.0	99.0	602541
CHRM2	142.7	100.0	99.8	-
CITED2	111.6	99.2	99.0	614433
COL3A1	104.3	97.8	92.3	130020
COQ2	89.3	96.1	93.2	607426146500
COX15	98.6	100.0	99.7	256000;615119
CPT1A	169.3	100.0	98.7	255120
CPT2	162.8	97.2	95.4	600649608836255110614212
CRELD1	114.4	99.9	97.8	606217
CRKL	166.4	100.0	99.8	602007
CRYAB	125.7	99.9	98.7	615184
CSRP3	103.0	100.0	99.9	607482
CTF1	24.5	28.0	20.0	-

CTNNA3	138.3	100.0	99.9	615616
DES	120.8	99.9	98.1	615325;604765
DMD	112.4	99.4	97.4	300376
DOLK	202.9	100.0	99.9	610768
DPM3	183.9	100.0	100.0	612937
DPP6	145.5	96.5	94.5	612956
DSC2	128.5	99.4	96.2	610476
DSG2	140.6	99.9	98.7	610193
DSP	154.0	100.0	99.8	607450
DTNA	156.5	100.0	100.0	604169
EEF1A2	177.7	98.8	93.8	616409616393
EFEMP2	120.9	100.0	99.9	614437
ELN	91.1	99.4	97.4	123700
EMD	100.3	99.8	97.2	310300
EMILIN1	75.6	96.8	87.5	-
ENPP1	134.8	92.4	83.2	125853;208000;615522;613312;601665
EYA4	160.6	100.0	99.5	605362
FAH	151.3	100.0	99.9	276700
FBN1	159.8	99.9	99.5	102370
FBN2	161.7	100.0	99.5	121050
FBXO32	150.6	100.0	100.0	-
FGF12	95.5	99.6	96.3	617166
FHL1	87.2	98.8	93.0	300696
FHL2	149.6	99.6	98.4	-
FHOD3	135.2	99.9	98.5	-
FKRP	94.5	100.0	99.7	607155
FKTN	120.0	99.2	94.2	611615
FLNA	138.1	100.0	99.5	314400
FLNC	165.0	100.0	99.7	614065
FLT4	155.9	98.6	97.9	153100602089

FOXD4	3.1	25.0	13.3	-
FOXE3	20.6	68.9	47.8	617349
FOXH1	47.2	98.5	85.0	603621
GAA	128.5	100.0	99.9	232300
GATA4	87.4	68.6	60.7	607941
GATA5	44.2	98.3	84.4	611496
GATA6	61.7	83.7	72.1	614475
GATAD1	126.6	97.0	92.0	614672
GBE1	145.5	99.6	97.2	232500;263570
GDF1	19.5	65.0	48.4	217095
GDF2	163.2	100.0	100.0	615506
GJA5	268.4	100.0	100.0	614049
GLA	81.3	99.7	97.6	301500
GLB1	94.3	99.6	97.0	230500;230600230650253010
GMPPB	228.5	100.0	100.0	615352
GNPTAB	167.7	98.3	97.4	252500;252600
GPD1L	138.3	100.0	98.5	611777
HADHA	84.4	96.5	90.3	609016609015
HADHB	80.5	92.5	79.5	609015
HAND1	84.8	100.0	98.9	602406
HAND2	32.2	87.8	67.9	-
HCN2	53.2	58.3	50.7	-
HCN3	146.4	99.9	99.2	-
HCN4	79.4	98.3	91.8	613123
HEY2	146.1	99.2	92.8	604674
HFE	142.0	100.0	99.7	235200
HFE2	116.8	100.0	100.0	602390
HSPB6	63.1	89.4	77.4	-
IDUA	123.0	88.1	80.0	607014
ILK	171.6	100.0	100.0	-

IRX3	73.8	82.9	66.2	-
IRX4	90.0	95.8	92.3	606199
ITPA	120.2	100.0	100.0	613850;616647
JAG1	148.4	98.1	97.5	118450
JPH2	87.5	90.4	75.1	613873
JUP	145.1	100.0	99.6	611528
KCNA5	143.3	99.4	96.0	612240
KCND2	183.4	100.0	100.0	-
KCND3	182.5	99.9	99.1	607346
KCNE1	462.6	100.0	100.0	612347
KCNE2	181.5	100.0	100.0	611493
KCNE3	177.1	100.0	100.0	613119
KCNE4	84.8	79.9	77.6	-
KCNE5	88.0	97.7	90.3	300328
KCNH2	102.6	92.3	84.8	613688
KCNJ11	299.5	100.0	100.0	606176
KCNJ2	229.3	100.0	100.0	170390
KCNJ5	193.9	100.0	99.8	613677
KCNJ8	177.1	100.0	100.0	600935
KCNK3	165.3	98.9	96.1	615344
KCNN3	151.1	100.0	99.9	-
KCNQ1	114.7	93.0	90.3	607554
KLF10	141.4	100.0	99.7	-
KRAS	64.7	99.9	98.7	109800
LAMA2	143.5	99.9	99.5	607855
LAMA4	132.6	100.0	99.9	615235
LAMP2	106.1	92.7	91.2	300257
LDB3	127.3	95.5	93.7	601493
LEFTY2	42.3	91.3	77.1	601877
LIMS2	110.8	93.0	92.3	616827

LMNA	89.2	97.9	91.3	115200;159001
LMOD1	177.4	100.0	100.0	-
LOX	104.4	99.8	97.6	617168
LRIT3	142.4	94.4	94.1	615058
LRRC10	193.6	100.0	100.0	610846
LZTR1	134.0	100.0	99.4	615670;616564
MAT2A	115.4	99.7	96.9	-
MED13L	134.6	100.0	99.6	608808
MFAP5	126.8	100.0	99.5	616166
MIB1	141.7	100.0	99.6	615092
MLYCD	75.6	91.3	86.9	248360
MMP21	93.3	90.2	84.6	-
MYBPC3	142.5	98.5	95.7	115197
MYBPHL	99.8	99.2	94.2	-
MYH11	132.6	100.0	99.3	132900
MYH6	113.3	99.0	96.1	614089
MYH7	111.4	99.4	96.8	613426
MYH7B	113.2	97.6	94.5	-
MYL2	134.6	98.7	90.1	608758
MYL3	103.1	100.0	100.0	608751
MYL4	158.5	100.0	100.0	617280
MYL7	130.8	100.0	100.0	-
MYLK	148.4	99.9	99.3	613780
MYLK2	120.0	100.0	100.0	192600
MYO6	89.7	98.1	92.3	606346607821
MYOM1	149.5	99.8	98.4	-
MYOT	139.4	99.3	95.5	159000
MYOZ2	145.9	100.0	100.0	613838
MYPN	142.4	99.3	98.4	615248
NCOA6	150.2	100.0	99.6	605299

NEBL	102.2	96.7	92.9	605491
NEXN	79.8	94.2	79.9	613122
NKX2-5	83.2	100.0	99.5	271400
NKX2-6	104.4	100.0	99.7	217095
NNT	136.9	98.6	97.1	614736
NODAL	160.7	100.0	99.9	270100
NOS1AP	192.2	100.0	100.0	-
NOTCH1	137.5	99.1	98.0	109730
NOTCH2	172.4	100.0	99.9	610205
NPPA	115.4	100.0	100.0	612201
NPPB	160.4	100.0	100.0	-
NR2F2	246.1	98.7	94.3	615779
NRAS	188.4	100.0	100.0	614470
NUP155	115.1	97.6	92.3	615770
OBSCN	159.3	99.3	98.2	608616
PCCA	103.1	96.4	89.2	606054
PCCB	129.8	98.7	96.4	606054
PDLIM3	148.4	100.0	100.0	605889
PGM1	133.6	100.0	99.9	614921
PHKA1	106.7	98.9	95.3	300559
PHYH	74.6	97.5	90.8	266500
PITX2	147.8	99.7	97.5	601542
PKD1L1	123.8	100.0	99.6	617205
PKP2	99.6	94.6	87.7	609040
PKP4	138.9	99.2	96.2	-
PLEKHM2	112.7	100.0	99.7	-
PLN	209.7	100.0	100.0	609909
PLOD1	137.9	99.8	97.5	225400
PMM2	141.1	99.9	99.4	212065
PNPLA2	113.2	99.7	97.4	610717

POMT1	155.7	99.7	98.1	609308
POMT2	111.1	98.9	97.5	613158
PPA2	80.4	94.6	82.5	617223;617222
PPCS	108.7	99.9	98.4	618189
PRDM16	161.5	100.0	99.1	615373
PRKAG2	125.6	98.1	91.6	600858
PRKG1	123.4	98.7	95.4	615436
PTPN11	103.1	97.9	92.5	151100
RAF1	127.3	100.0	99.7	611554
RANGRF	114.0	99.9	98.4	607954
RBM20	180.9	99.2	96.6	613172
RIT1	165.6	100.0	100.0	615355
RYR2	142.2	99.7	98.4	600996
SCN10A	165.3	100.0	99.5	615551
SCN1B	168.3	97.1	96.1	612838
SCN2B	185.8	100.0	100.0	615378
SCN3B	147.3	100.0	100.0	613120
SCN4B	77.5	100.0	97.9	611819
SCN5A	169.4	99.0	99.0	614022
SDHA	122.2	84.8	80.8	613642
SGCA	147.3	100.0	99.7	608099
SGCB	154.2	96.6	94.2	604286
SGCD	94.8	100.0	99.4	606685
SGCG	138.7	100.0	100.0	253700
SHOC2	140.4	100.0	99.4	607721
SHROOM3	137.3	99.9	98.9	604570
SKI	85.3	96.4	90.8	182212
SLC22A5	153.3	100.0	100.0	212140
SLC25A20	110.3	100.0	99.7	212138
SLC25A4	134.1	100.0	100.0	617184615418609283

SLC2A10	166.4	97.7	97.6	208050
SLMAP	121.2	93.5	85.2	-
SMAD1	184.0	99.9	99.7	-
SMAD2	151.7	99.9	99.1	601366
SMAD3	131.7	99.9	99.2	613795
SMAD4	125.5	100.0	100.0	175050139210260350174900
SMAD6	100.5	80.0	72.0	614823
SMAD9	132.8	100.0	100.0	615342
SNTA1	97.0	82.3	77.3	612955
SOS1	94.3	96.7	90.3	135300
SRI	114.3	97.9	88.9	-
SYNE1	136.6	98.2	97.6	612998
SYNE2	123.1	98.6	96.0	612999
TAB2	210.5	99.7	97.6	614980
TAZ	94.0	99.9	98.8	302060
TBX1	75.3	77.1	67.4	217095
TBX20	142.8	99.9	99.3	611363
TBX5	141.3	100.0	100.0	142900
TCAP	89.0	100.0	99.2	607487601954
TDGF1	151.4	99.8	96.4	187395
TECRL	59.3	89.9	77.1	614021
TFAP2B	153.5	98.8	96.3	169100
TGFB2	176.9	100.0	99.9	614816
TGFB3	171.5	100.0	100.0	107970
TGFBR1	173.4	93.7	93.6	609192
TGFBR2	193.5	100.0	99.9	614331
TLL1	140.1	100.0	99.9	613087
TMEM43	124.9	100.0	99.5	604400
TMPO	117.8	98.7	94.5	188380
TNNC1	174.5	100.0	100.0	611879

TNNI3	86.7	98.1	86.5	613286
TNNI3K	118.8	98.8	96.0	616117
TNNT2	106.3	100.0	99.9	601494
TOR1AIP1	143.8	97.6	95.9	617072
TPM1	132.9	99.7	97.9	611878
TRDN	71.9	83.6	70.8	615441
TRIM63	118.6	100.0	99.6	606131
TRPM4	109.2	99.8	98.5	604559
TTN	187.8	98.2	97.2	604145608807
TTR	152.3	94.6	94.6	105210
TXNRD2	119.3	93.3	91.2	-
VCL	115.8	100.0	99.8	611407
XIRP2	138.5	100.0	99.7	-
XK	96.8	99.9	99.1	300842
ZBTB17	142.0	100.0	100.0	-
ZFPM2	196.3	100.0	99.6	610187
ZIC3	113.7	100.0	99.8	306955

Gene symbols used follow HGNC guidelines: Gray KA, Yates B, Seal RL, Wright MW, Bruford EA. Nucleic Acids Res. 2015 Jan;43(Database issue):D1079-85.

Median Coverage describes the average number of reads seen across 50 exomes.

% Covered 10x describes the percentage of a gene's coding sequence that is covered at least 10x.

% Covered 20x describes the percentage of a gene's coding sequence that is covered at least 20x.

Genes with Median Coverage and % Covered 10x/20x denoting NC are non-coding genes for which coverage statistics could not be generated.

OMIM release used for OMIM disease identifiers and descriptions : October 1st, 2016.

Ad 1. "No OMIM phenotype" signifies a gene without a current OMIM association Ad 2. OMIM phenotype descriptions between {} signify risk factors