

Supp. Table S1: Expert-curated variants meeting functional criteria (PS3/BS3).

^aExpert panel-curated variants that met either PS3 or BS3 functional criteria are listed by gene, cDNA, amino acid, and variant type. Variants were curated by expert panels using the following reference transcripts: *PTPN11* (NM_002834.3), *BRAF* (NM_004333.4), *MAP2K1* (NM_002755.3), *MYH7* (NM_000257.3), *HRAS* (NM_005343.2), *RAF1* (NM_002880.3), *KRAS* (NM_004985.4), *SOS1* (NM_005633.3), *SHOC2* (NM_007373.3), and *MAP2K2* (NM_030662.3). ^bEvidence Satisfied, as determined by expert panels in Gelb et al. (2018) and Kelly et al. (2018), displayed as the number satisfied in each abbreviated category described in Richards et al. (2015). The first letter of each code indicates support for a pathogenic (P) or benign (B) classification and the second letter indicates the assigned evidence strength: supporting (P), moderate (M), strong (S), very strong (VS), or stand-alone (A). ^{c,d} The final variant classification assessed according to categorical ACMG/AMP combining rules (Table 5 in Richards et al., 2015), with Expert Panel (EP) variant classifications considering only evidence satisfied in (b). Variant class according to the categorical combining rules if PS3 had not been met is shown as “-PS3” in (c), and if BS3 had not been met in shown as “-BS3” is (d). ^eVariant class according to the quantitative, Bayesian-adapted framework was determined by posterior probability of pathogenicity (Post_P). Post_P was calculated by entering evidence totals by strength in Supplemental Table 1 from Tavgitgian et al. (2018), using the default settings: Prior Probability (Prior_P) = 0.100; Odds Path Very Strong = 350; Exponential progression (X) = 2.000. Each Post_P was then assigned a variant classification as follows: benign <0.001; 0.001 ≤ likely benign < 0.1; 0.1 ≤ VUS < 0.90; 0.90 ≤ likely pathogenic < 0.99; 0.99 ≤ pathogenic. ACMG/AMP, American College of Medical Genetics and Genomics/Association for Molecular Pathology; BS3, well-established functional studies show no deleterious effect; EP, Expert Panel; LB, likely benign; LP, likely pathogenic; P, pathogenic; Post_P, posterior probability of pathogenicity; PS3, well established functional studies show a deleterious effect; VUS, variant of uncertain significance.

EP classified as pathogenic, met PS3 ^a				Evidence Satisfied (MET PS3) ^b							Categorical ^c		Quantitative ^e	
Gene	cDNA	Amino Acid	Variant Type	PP	PM	PS	PVS	BP	BS	BA	EP Class	-PS3	Class	Post_P
<i>PTPN11</i>	c.794G>A	p.Arg265Gln	Missense	2	2	2	1	0	0	0	P	P	P	1.000
<i>BRAF</i>	c.770A>G	p.Gln257Arg	Missense	2	2	1	1	0	0	0	P	P	P	1.000
<i>BRAF</i>	c.1406G>A	p.Gly469Glu	Missense	2	2	1	1	0	0	0	P	P	P	1.000
<i>MAP2K1</i>	c.389A>G	p.Tyr130Cys	Missense	2	2	1	1	0	0	0	P	P	P	1.000
<i>MYH7</i>	c.2155C>T	p.Arg719Trp	Missense	1	3	4	0	0	0	0	P	P	P	1.000
<i>MYH7</i>	c.1357C>T	p.Arg453Cys	Missense	1	2	4	0	0	0	0	P	P	P	1.000
<i>PTPN11</i>	c.922A>G	p.Asn308Asp	Missense	2	1	4	0	0	0	0	P	P	P	1.000
<i>HRAS</i>	c.34G>A	p.Gly12Ser	Missense	2	3	3	0	0	0	0	P	P	P	1.000

<i>MYH7</i>	c.1208G>A	p.Arg403Gln	Missense	1	3	3	0	0	0	0	P	P	P	1.000
<i>RAF1</i>	c.775T>A	p.Ser259Thr	Missense	4	2	3	0	0	0	0	P	P	P	1.000
<i>KRAS</i>	c.40G>A	p.Val14Ile	Missense	2	2	3	0	0	0	0	P	P	P	1.000
<i>PTPN11</i>	c.1403C>T	p.Thr468Met	Missense	2	2	3	0	0	0	0	P	P	P	1.000
<i>SOS1</i>	c.1642A>C	p.Ser548Arg	Missense	2	2	3	0	0	0	0	P	P	P	1.000
<i>SHOC2</i>	c.4A>G	p.Ser2Gly	Missense	1	2	3	0	0	0	0	P	P	P	1.000
<i>BRAF</i>	c.736G>C	p.Ala246Pro	Missense	2	3	2	0	0	0	0	P	P	P	1.000
<i>BRAF</i>	c.1741A>G	p.Asn581Asp	Missense	2	2	2	0	0	0	0	P	P	P	1.000
<i>BRAF</i>	c.1787G>T	p.Gly596Val	Missense	2	2	2	0	0	0	0	P	P	P	1.000
<i>KRAS</i>	c.173C>T	p.Thr58Ile	Missense	2	2	2	0	0	0	0	P	P	P	1.000
<i>KRAS</i>	c.178G>C	p.Gly60Arg	Missense	2	2	2	0	0	0	0	P	P	P	1.000
<i>KRAS</i>	c.65A>G	p.Gln22Arg	Missense	2	2	2	0	0	0	0	P	P	P	1.000
<i>MAP2K2</i>	c.383C>A	p.Pro128Gln	Missense	2	2	2	0	0	0	0	P	P	P	1.000
<i>PTPN11</i>	c.188A>G	p.Tyr63Cys	Missense	2	2	2	0	0	0	0	P	P	P	1.000
<i>SOS1</i>	c.322G>A	p.Glu108Lys	Missense	2	2	2	0	0	0	0	P	P	P	1.000
<i>MYH7</i>	c.1594T>C	p.Ser532Pro	Missense	2	2	2	0	0	0	0	P	LP	P	1.000
<i>HRAS</i>	c.350A>G	p.Lys117Arg	Missense	1	2	2	0	0	0	0	P	LP	P	0.999
<i>RAF1</i>	c.770C>T	p.Ser257Leu	Missense	1	2	2	0	0	0	0	P	LP	P	0.999
<i>MAP2K1</i>	c.199G>A	p.Asp67Asn	Missense	2	1	2	0	0	0	0	P	LP	P	0.999
<i>PTPN11</i>	c.1510A>G	p.Met504Val	Missense	2	1	2	0	0	0	0	P	LP	P	0.999
<i>RAF1</i>	c.1837C>G	p.Leu613Val	Missense	1	1	2	0	0	0	0	P	LP	P	0.997
<i>KRAS</i>	c.458A>T	p.Asp153Val	Missense	0	1	2	0	0	0	0	P	LP	P	0.994
<i>MAP2K1</i>	c.158T>C	p.Phe53Ser	Missense	2	3	1	0	0	0	0	P	LP	P	0.999
<i>MAP2K2</i>	c.170T>G	p.Phe57Cys	Missense	2	3	1	0	0	0	0	P	LP	P	0.999
<i>SOS1</i>	c.508A>G	p.Lys170Glu	Missense	2	3	1	0	0	0	0	P	LP	P	0.999
<i>SOS1</i>	c.2536G>A	p.Glu846Lys	Missense	2	3	1	0	0	0	0	P	LP	P	0.999
<i>MAP2K2</i>	c.401A>G	p.Tyr134Cys	Missense	2	2	1	0	0	0	0	P	LP	P	0.994
<i>PTPN11</i>	c.417G>C	p.Glu139Asp	Missense	2	2	1	0	0	0	0	P	LP	P	0.994
<i>RAF1</i>	c.768G>T	p.Arg256Ser	Missense	2	2	1	0	0	0	0	P	LP	P	0.994

<i>RAF1</i>	c.1472C>T	p.Thr491Ile	Missense	2	2	1	0	0	0	0	P	LP	P	0.994
<i>RAF1</i>	c.781C>T	p.Pro261Ser	Missense	1	2	1	0	0	0	0	P	LP	LP	0.988
EP classified as likely benign with BS3^a				Evidence Satisfied (MET BS3)^b							Categorical^d		Quantitative^e	
Gene	cDNA	Amino Acid	Variant Type	PP	PM	PS	PVS	BP	BS	BA	EP Class	-BS3	Class	Post_P
<i>PTPN11</i>	c.1678C>T	p.Leu560Phe	Missense	0	0	0	0	1	1	0	LB	VUS	LB	0.0028

Supp. Table S2: Expert-curated variants not meeting functional criteria (PS3/BS3).

^aExpert panel (EP)-curated variants that met neither PS3 or BS3 functional criteria are listed by gene, cDNA, protein, and variant type and are grouped by EP classification. Variants were curated by expert panels using the following reference transcripts: *PTPN11* (LRG_614t1, intronic variants; NM_002834.3, all others), *BRAF* (LRG_299t1, intronic variants; NM_004333.4, all others), *MAP2K1* (LRG_725t1, intronic variants; NM_002755.3, all others), *MYH7* (LRG_384t1, intronic and splice variants; NM_000257.3, all others), *HRAS* (NM_005343.2), *RAF1* (LRG_413t1, intronic variants; NM_002880.3, all others), *KRAS* (NC_000012.12, intronic variants; NM_004985.4, all others), *SOS1* (NM_005633.3), *SHOC2* (LRG_753t1, 5' UTR variants; NM_007373.3, all others), and *MAP2K2* (LRG_750t1, 3' UTR variants; NM_030662.3, all others). ^bEvidence Satisfied, as determined by expert panels in Gelb et al. (2018) and Kelly et al. (2018), displayed as the number satisfied in each abbreviated category described in Richards et al. (2015). The first letter of each code indicates support for a pathogenic (P) or benign (B) classification and the second letter indicates the assigned evidence strength: supporting (P), moderate (M), strong (S), very strong (VS), or stand-alone (A). ^cThe final variant classification assessed according to categorical ACMG/AMP combining rules (Table 5 in Richards et al., 2015), with EP classifications considering only evidence satisfied in (b). ^dVariant class with the addition of either PS3 or BS3 criteria in the categorical interpretation framework (Table 5 in Richards et al.). ^eVariant class according to the quantitative, Bayesian-adapted framework was determined by posterior probability of pathogenicity (Post_P). Post_P was calculated by entering evidence totals by strength in Supplemental Table 1 from Tavtigian et al. (2018), using the default settings: Prior Probability (Prior_P) = 0.100; Odds Path Very Strong = 350; Exponential progression (X) = 2.000. Each Post_P was then assigned a variant classification as follows: benign <0.001; 0.001 ≤ likely benign < 0.1; 0.1 ≤ VUS < 0.90; 0.90 ≤ likely pathogenic < 0.99; 0.99 ≤ pathogenic. The last four columns show the variant classification according to Post_P if strong pathogenic criteria (PS3) or strong benign criteria (BS3) were to be added within the quantitative framework (see manuscript text for details). ACMG/AMP, American College of Medical Genetics and Genomics/Association for Molecular Pathology; B, benign; BS3, well-established functional studies show no deleterious effect; CON, conflicting; EP, Expert Panel; LB, likely benign; LP, likely pathogenic; n/a, not available; P, pathogenic; Post_P, posterior probability of pathogenicity; PS3, well established functional studies show a deleterious effect; Synonym., synonymous; VUS, variant of uncertain significance.

EP classified as benign ^a				Evidence Satisfied (no PS3/BS3) ^b							Categorical ^c			Quantitative ^e					
Gene	cDNA	Amino Acid	Variant Type	PP	PM	PS	PVS	BP	BS	BA	EP Class	+PS3 ^d	+BS3 ^d	Class	Post_P	+PS3	Post_P	+BS3	Post-P
<i>RAF1</i>	c.119G>A	p.Arg40His	Missense	0	0	0	0	1	1	1	B	CON	B	All of these meet BA1, which is not included in Bayesian framework described by Tavtigian et al. (2018).					
<i>BRAF</i>	c.1227A>G	p.Ser409=	Synonym.	0	0	0	0	3	0	1	B	CON	B						
<i>SHOC2</i>	c.1302C>T	p.Asn434=	Synonym.	0	0	0	0	3	0	1	B	CON	B						
<i>SOS1</i>	c.1230G>A	p.Gln410=	Synonym.	0	0	0	0	3	0	1	B	CON	B						
<i>BRAF</i>	c.1433-19A>G	n/a	Intronic	1	0	0	0	2	0	1	B	CON	CON						
<i>RAF1</i>	c.1108+9_1108+21delGGG GCCCTCCC TT	n/a	Intronic	0	0	0	0	2	0	1	B	CON	B						
<i>HRAS</i>	c.257A>C	p.Asn86Thr	Missense	0	0	0	0	1	0	1	B	CON	B						
<i>KRAS</i>	c.531_533del GAA	p.Lys180del	Deletion	0	0	0	0	1	0	1	B	CON	B						
<i>MAP2K1</i>	c.848C>T	p.Ala283Val	Missense	0	0	0	0	1	0	1	B	CON	B						
<i>MAP2K1</i>	c.694-8_694-7dupTC	n/a	Intronic	0	0	0	0	1	0	1	B	CON	B						
<i>MAP2K2</i>	c.844C>T	p.Pro282Ser	Missense	0	0	0	0	1	0	1	B	CON	B						
<i>PTPN11</i>	c.1658C>T	p.Thr553Met	Missense	0	0	0	0	1	0	1	B	CON	B						
<i>SHOC2</i>	c.10A>C	p.Ser4Arg	Missense	0	0	0	0	1	0	1	B	CON	B						
<i>MYH7</i>	c.327C>T	p.Tyr109=	Synonym.	0	0	0	0	1	0	1	B	CON	B						
<i>MYH7</i>	c.3036C>T	p.Ala1012=	Synonym.	0	0	0	0	1	0	1	B	CON	B						
<i>MYH7</i>	c.2162+4G>A	n/a	Intronic	0	0	0	0	1	0	1	B	CON	B						
<i>BRAF</i>	c.968C>T	p.Ser323Leu	Missense	0	0	0	0	0	0	1	B	CON	B						
<i>HRAS</i>	c.81T>C	p.His27=	Synonym.	0	0	0	0	0	0	1	B	CON	B						
<i>KRAS</i>	c.519T>C	p.Asp173=	Synonym.	0	0	0	0	0	0	1	B	CON	B						
<i>MAP2K2</i>	c.1162C>T	p.Arg388Trp	Missense	0	0	0	0	0	0	1	B	CON	B						
<i>PTPN11</i>	c.525+12G>C	n/a	Intronic	0	0	0	0	0	0	1	B	CON	B						
<i>PTPN11</i>	c.854-32A>C	n/a	Intronic	0	0	0	0	0	0	1	B	CON	B						
<i>PTPN11</i>	c.925A>G	p.Ile309Val	Missense	0	0	0	0	0	0	1	B	CON	B						

<i>RAF1</i>	c.212A>G	p.Asn71Ser	Missense	0	0	0	0	0	0	1	B	CON	B						
<i>SHOC2</i>	c.38A>C	p.Glu13Ala	Missense	0	0	0	0	0	0	1	B	CON	B						
<i>SOS1</i>	c.749T>C	p.Val250Ala	Missense	0	0	0	0	0	0	1	B	CON	B						
<i>SOS1</i>	c.2122G>A	p.Ala708Thr	Missense	0	0	0	0	0	0	1	B	CON	B						
<i>SOS1</i>	c.73C>T	p.Pro25Ser	Missense	0	0	0	0	0	0	1	B	CON	B						
<i>SOS1</i>	c.2371C>A	p.Leu791Ile	Missense	0	0	0	0	0	0	1	B	CON	B						
<i>SOS1</i>	c.3032A>G	p.Asn1011Ser	Missense	0	0	0	0	0	0	1	B	CON	B						
<i>BRAF</i>	c.64G>A	p.Asp22Asn	Missense	0	0	0	0	0	2	0	B	CON	B	B	0.0003	LB	0.0059	B	0.00002
EP classified as likely benign^a				Evidence Satisfied (no PS3/BS3)^b							Categorical^c			Quantitative^e					
Gene	cDNA	Amino Acid	Variant Type	PP	PM	PS	PVS	BP	BS	BA	EP Class	+PS3 ^d	+BS3 ^d	Class	Post_P	+PS3	Post_P	+BS3	Post_P
<i>SOS1</i>	c.350T>G	p.Val117Gly	Missense	1	0	0	0	1	1	0	LB	CON	CON	LB	0.006	VUS	0.100	B	0.0003
<i>MYH7</i>	c.4377G>T	p.Lys1459Asn	Missense	1	0	0	0	0	1	0	LB	CON	CON	LB	0.012	VUS	0.188	B	0.0007
<i>SOS1</i>	c.109A>G	p.Thr37Ala	Missense	0	0	0	0	2	1	0	LB	CON	B	LB	0.001	LB	0.025	B	0.0001
<i>BRAF</i>	c.92C>G	p.Ala31Gly	Missense	0	0	0	0	1	1	0	LB	CON	B	LB	0.003	LB	0.051	B	0.0002
<i>RAF1</i>	c.66T>G	p.Phe22Leu	Missense	0	0	0	0	1	1	0	LB	CON	B	LB	0.003	LB	0.051	B	0.0002
<i>HRAS</i>	c.510G>A	p.Lys170=	Synonym.	0	0	0	0	3	0	0	LB	CON	LB	LB	0.012	VUS	0.188	B	0.0007
<i>BRAF</i>	c.111G>A	p.Ser37=	Synonym.	0	0	0	0	2	0	0	LB	CON	LB	LB	0.025	VUS	0.325	LB	0.0014
<i>KRAS</i>	c.451-14T>C	n/a	Intronic	0	0	0	0	2	0	0	LB	CON	LB	LB	0.025	VUS	0.325	LB	0.0014
<i>MAP2K2</i>	c.*8C>T	n/a	3' UTR	0	0	0	0	2	0	0	LB	CON	LB	LB	0.025	VUS	0.325	LB	0.0014
EP classified as likely pathogenic^a				Evidence Satisfied (no PS3/BS3)^b							Categorical^c			Quantitative^e					
Gene	cDNA	Amino Acid	Variant Type	PP	PM	PS	PVS	BP	BS	BA	EP Class	+PS3 ^d	+BS3 ^d	Class	Post_P	+PS3	Post_P	+BS3	Post_P
<i>MYH7</i>	c.2539_2541delAAG	p.Lys847del	Deletion	1	2	1	0	0	0	0	LP	P	CON	LP	0.988	P	0.999	VUS	0.812
<i>MYH7</i>	c.2539A>G	p.Lys847Glu	Missense	1	2	1	0	0	0	0	LP	P	CON	LP	0.988	P	0.999	VUS	0.812
<i>MYH7</i>	c.3158G>A	p.Arg1053Gln	Missense	1	2	1	0	0	0	0	LP	P	CON	LP	0.988	P	0.999	VUS	0.812
<i>MYH7</i>	c.4066G>A	p.Glu1356Lys	Missense	1	2	1	0	0	0	0	LP	P	CON	LP	0.988	P	0.999	VUS	0.812
<i>MAP2K1</i>	c.275T>G	p.Leu92Arg	Missense	3	1	1	0	0	0	0	LP	P	CON	LP	0.988	P	0.999	VUS	0.812
<i>MAP2K2</i>	c.619G>A	p.Glu207Lys	Missense	3	1	1	0	0	0	0	LP	P	CON	LP	0.988	P	0.999	VUS	0.812

<i>RAF1</i>	c.1082G>C	p.Gly361Ala	Missense	3	1	1	0	0	0	0	LP	P	CON	LP	0.988	P	0.999	VUS	0.812
<i>MYH7</i>	c.5135G>A	p.Arg1712Gln	Missense	2	1	1	0	0	0	0	LP	P	CON	LP	0.975	P	0.999	VUS	0.675
<i>MYH7</i>	c.428G>A	p.Arg143Gln	Missense	1	1	1	0	0	0	0	LP	P	CON	LP	0.949	P	0.997	VUS	0.500
<i>MYH7</i>	c.3133C>T	p.Arg1045Cys	Missense	1	1	1	0	0	0	0	LP	P	CON	LP	0.949	P	0.997	VUS	0.500
<i>MYH7</i>	c.4130C>T	p.Thr1377Met	Missense	1	1	1	0	0	0	0	LP	P	CON	LP	0.949	P	0.997	VUS	0.500
<i>MAP2K1</i>	c.388T>C	p.Tyr130His	Missense	2	3	0	0	0	0	0	LP	P	CON	LP	0.975	P	0.999	VUS	0.675
<i>RAF1</i>	c.769T>C	p.Ser257Pro	Missense	2	4	0	0	0	0	0	LP	P	CON	P	0.994	P	1.000	VUS	0.900
<i>RAF1</i>	c.788T>G	p.Val263Gly	Missense	2	4	0	0	0	0	0	LP	P	CON	P	0.994	P	1.000	VUS	0.900
<i>MYH7</i>	c.1106G>A	p.Arg369Gln	Missense	0	4	0	0	0	0	0	LP	P	CON	LP	0.975	P	0.999	VUS	0.675
<i>MAP2K2</i>	c.400T>C	p.Tyr134His	Missense	3	3	0	0	0	0	0	LP	P	CON	LP	0.988	P	0.999	VUS	0.812
<i>MYH7</i>	c.2608C>T	p.Arg870Cys	Missense	2	3	0	0	0	0	0	LP	P	CON	LP	0.975	P	0.999	VUS	0.675
<i>MYH7</i>	c.2678C>T	p.Ala893Val	Missense	1	3	0	0	0	1	0	LP	CON	CON	VUS	0.500	LP	0.949	LB	0.051
<i>MYH7</i>	c.2791_2793delGAG	p.Glu931del	Deletion	1	3	0	0	0	0	0	LP	P	CON	LP	0.949	P	0.997	VUS	0.500
<i>MYH7</i>	c.1157A>G	p.Tyr386Cys	Missense	1	3	0	0	0	0	0	LP	P	CON	LP	0.949	P	0.997	VUS	0.500
<i>HRAS</i>	c.175G>A	p.Ala59Thr	Missense	4	2	0	0	0	0	0	LP	P	CON	LP	0.975	P	0.999	VUS	0.675
<i>BRAF</i>	c.1595G>A	p.Cys532Tyr	Missense	2	2	0	0	0	0	0	LP	P	CON	LP	0.900	P	0.994	VUS	0.325
<i>MAP2K1</i>	c.169A>C	p.Lys57Gln	Missense	2	2	0	0	0	0	0	LP	P	CON	LP	0.900	P	0.994	VUS	0.325
<i>MYH7</i>	c.3658_3660delGAG	p.Glu1220del	Deletion	2	2	0	0	0	0	0	LP	P	CON	LP	0.900	P	0.994	VUS	0.325
<i>MYH7</i>	c.5401G>A	p.Glu1801Lys	Missense	2	2	0	0	0	0	0	LP	P	CON	LP	0.900	P	0.994	VUS	0.325
<i>MYH7</i>	c.5740G>A	p.Glu1914Lys	Missense	2	2	0	0	0	0	0	LP	P	CON	LP	0.900	P	0.994	VUS	0.325
<i>PTPN11</i>	c.155C>T	p.Thr52Ile	Missense	2	2	0	0	0	0	0	LP	P	CON	LP	0.900	P	0.994	VUS	0.325
<i>MYH7</i>	c.4258C>T	p.Arg1420Trp	Missense	1	2	0	0	0	0	0	LP	LP	CON	VUS	0.812	LP	0.988	VUS	0.188
<i>MYH7</i>	c.5726G>C	p.Arg1909Pro	Missense	1	2	0	0	0	0	0	LP	LP	CON	VUS	0.812	LP	0.988	VUS	0.188
EP classified as pathogenic^a				Evidence Satisfied (no PS3/BS3)^b							Categorical^c			Quantitative^e					
Gene	cDNA	Amino Acid	Variant Type	PP	PM	PS	PVS	BP	BS	BA	EP Class	+PS3^d	+BS3^d	Class	Post_P	+PS3	Post_P	+BS3	Post_P
<i>MAP2K2</i>	c.169T>G	p.Phe57Val	Missense	2	2	0	1	0	0	0	P	P	CON	P	1.000	P	1.000	P	0.994
<i>MYH7</i>	c.2167C>T	p.Arg723Cys	Missense	1	4	2	0	1	0	0	P	CON	CON	P	1.000	P	1.000	P	0.999

MYH7	c.1207C>T	p.Arg403Trp	Missense	1	3	2	0	0	0	0	P	P	CON	P	1.000	P	1.000	P	0.997
MYH7	c.2146G>A	p.Gly716Arg	Missense	1	3	2	0	0	0	0	P	P	CON	P	1.000	P	1.000	P	0.997
MYH7	c.2156G>A	p.Arg719Gln	Missense	1	3	2	0	0	0	0	P	P	CON	P	1.000	P	1.000	P	0.997
MYH7	c.2167C>G	p.Arg723Gly	Missense	1	3	2	0	0	0	0	P	P	CON	P	1.000	P	1.000	P	0.997
BRAF	c.1785T>G	p.Phe595Leu	Missense	3	2	2	0	0	0	0	P	P	CON	P	1.000	P	1.000	P	0.997
PTPN11	c.1529A>C	p.Gln510Pro	Missense	3	2	2	0	0	0	0	P	P	CON	P	1.000	P	1.000	P	0.997
HRAS	c.37G>T	p.Gly13Cys	Missense	2	2	2	0	0	0	0	P	P	CON	P	1.000	P	1.000	P	0.994
SOS1	c.806T>C	p.Met269Thr	Missense	2	2	2	0	0	0	0	P	P	CON	P	1.000	P	1.000	P	0.994
SOS1	c.1654A>G	p.Arg552Gly	Missense	2	2	2	0	0	0	0	P	P	CON	P	1.000	P	1.000	P	0.994
MYH7	c.788T>C	p.Ile263Thr	Missense	1	2	2	0	0	0	0	P	P	CON	P	0.999	P	1.000	LP	0.988
MYH7	c.2722C>G	p.Leu908Val	Missense	1	2	2	0	0	0	0	P	P	CON	P	0.999	P	1.000	LP	0.988
MYH7	c.1988G>A	p.Arg663His	Missense	0	2	2	0	0	0	0	P	P	CON	P	0.999	P	1.000	LP	0.975
MYH7	c.2609G>A	p.Arg870His	Missense	0	2	2	0	0	0	0	P	P	CON	P	0.999	P	1.000	LP	0.975
MYH7	c.2717A>G	p.Asp906Gly	Missense	0	2	2	0	0	0	0	P	P	CON	P	0.999	P	1.000	LP	0.975
PTPN11	c.1530G>C	p.Gln510His	Missense	2	1	2	0	0	0	0	P	P	CON	P	0.999	P	1.000	LP	0.975
MYH7	c.2221G>C	p.Gly741Arg	Missense	2	4	1	0	0	0	0	P	P	CON	P	1.000	P	1.000	P	0.994
MYH7	c.1358G>A	p.Arg453His	Missense	1	4	1	0	0	0	0	P	P	CON	P	0.999	P	1.000	LP	0.988
MYH7	c.2221G>T	p.Gly741Trp	Missense	1	4	1	0	0	0	0	P	P	CON	P	0.999	P	1.000	LP	0.988
HRAS	c.173C>T	p.Thr58Ile	Missense	3	3	1	0	0	0	0	P	P	CON	P	0.999	P	1.000	LP	0.988
BRAF	c.730A>C	p.Thr244Pro	Missense	2	3	1	0	0	0	0	P	P	CON	P	0.999	P	1.000	LP	0.975
PTPN11	c.781C>T	p.Leu261Phe	Missense	1	3	1	0	0	0	0	P	P	CON	P	0.997	P	1.000	LP	0.949
MYH7	c.1750G>C	p.Gly584Arg	Missense	1	3	1	0	0	0	0	P	P	CON	P	0.997	P	1.000	LP	0.949
MYH7	c.2681A>G	p.Glu894Gly	Missense	1	3	1	0	0	0	0	P	P	CON	P	0.997	P	1.000	LP	0.949
MYH7	c.2207T>C	p.Ile736Thr	Missense	0	3	1	0	0	0	0	P	P	CON	P	0.994	P	1.000	LP	0.900
KRAS	c.101C>T	p.Pro34Leu	Missense	2	2	1	0	0	0	0	P	P	CON	P	0.994	P	1.000	LP	0.900
MYH7	c.2513C>T	p.Pro838Leu	Missense	2	2	1	0	0	0	0	P	P	CON	P	0.994	P	1.000	LP	0.900
KRAS	c.15A>T	p.Lys5Asn	Missense	2	2	1	0	0	0	0	P	P	CON	P	0.994	P	1.000	LP	0.900
EP classified as VUS^a				Evidence Satisfied (no PS3/BS3)^b							Categorical^c			Quantitative^e					
Gene	cDNA	Amino Acid	Variant Type	PP	PM	PS	PVS	BP	BS	BA	Class	+PS3^d	+BS3^d	Class	Post_P	+PS3	Post_P	+BS3	Post_P

<i>MYH7</i>	c.732+1G>A	n/a	Splice donor	1	2	0	0	0	0	0	VUS	LP	CON	VUS	0.812	LP	0.988	VUS	0.188
<i>MYH7</i>	c.3169G>A	p.Gly1057Ser	Missense	1	2	0	0	0	0	0	VUS	LP	CON	VUS	0.812	LP	0.988	VUS	0.188
<i>MYH7</i>	c.1477_1478delAT	p.Met493fs	Frameshift	0	2	0	0	0	0	0	VUS	LP	CON	VUS	0.675	LP	0.975	VUS	0.100
<i>MYH7</i>	c.4588C>T	p.Arg1530*	Nonsense	0	2	0	0	0	0	0	VUS	LP	CON	VUS	0.675	LP	0.975	VUS	0.100
<i>RAF1</i>	c.1193G>T	p.Arg398Leu	Missense	2	1	0	0	0	0	0	VUS	LP	CON	VUS	0.675	LP	0.975	VUS	0.100
<i>MYH7</i>	c.4276G>A	p.Glu1426Lys	Missense	2	1	0	0	0	0	0	VUS	LP	CON	VUS	0.675	LP	0.975	VUS	0.100
<i>MYH7</i>	c.5302G>A	p.Glu1768Lys	Missense	2	1	0	0	0	0	0	VUS	LP	CON	VUS	0.675	LP	0.975	VUS	0.100
<i>MYH7</i>	c.5329G>A	p.Ala1777Thr	Missense	2	1	0	0	0	0	0	VUS	LP	CON	VUS	0.675	LP	0.975	VUS	0.100
<i>MYH7</i>	c.5588G>A	p.Arg1863Gln	Missense	2	1	0	0	0	0	0	VUS	LP	CON	VUS	0.675	LP	0.975	VUS	0.100
<i>MYH7</i>	c.4354-7C>T	n/a	Intronic	1	1	0	0	1	0	0	VUS	CON	CON	VUS	0.325	LP	0.900	LB	0.025
<i>HRAS</i>	c.277A>G	p.Ile93Val	Missense	1	1	0	0	0	0	0	VUS	LP	CON	VUS	0.500	LP	0.949	LB	0.051
<i>MYH7</i>	c.2360G>A	p.Arg787His	Missense	0	1	0	0	1	0	0	VUS	CON	CON	VUS	0.188	VUS	0.812	LB	0.012
<i>SHOC2</i>	c.519G>A	p.Met173Ile	Missense	0	1	0	0	0	0	0	VUS	LP	CON	VUS	0.325	LP	0.900	LB	0.025
<i>PTPN11</i>	c.244A>G	p.Met82Val	Missense	1	0	0	0	1	0	0	VUS	CON	CON	VUS	0.100	VUS	0.675	LB	0.006
<i>MYH7</i>	c.3981C>A	p.Asn1327Lys	Missense	1	0	0	0	0	1	0	VUS	CON	CON	LB	0.012	VUS	0.188	B	0.0007
<i>MAP2K2</i>	c.281C>T	p.Ser94Leu	Missense	1	0	0	0	0	0	0	VUS	VUS	CON	VUS	0.188	VUS	0.812	LB	0.012
<i>MYH7</i>	c.3286G>T	p.Asp1096Tyr	Missense	1	0	0	0	0	0	0	VUS	VUS	CON	VUS	0.188	VUS	0.812	LB	0.012
<i>MYH7</i>	c.3578G>A	p.Arg1193His	Missense	1	0	0	0	0	0	0	VUS	VUS	CON	VUS	0.188	VUS	0.812	LB	0.012
<i>MYH7</i>	c.5326A>G	p.Ser1776Gly	Missense	1	0	0	0	0	0	0	VUS	VUS	CON	VUS	0.188	VUS	0.812	LB	0.012
<i>MAP2K2</i>	c.784G>A	p.Val262Ile	Missense	0	0	0	0	1	0	0	VUS	CON	LB	LB	0.051	VUS	0.500	LB	0.003
<i>RAF1</i>	c.935T>C	p.Val312Ala	Missense	0	0	0	0	1	0	0	VUS	CON	LB	LB	0.051	VUS	0.500	LB	0.003
<i>MYH7</i>	c.3382G>A	p.Ala1128Thr	Missense	0	0	0	0	0	0	0	VUS	VUS	VUS	VUS	0.100	VUS	0.675	LB	0.006
<i>MYH7</i>	c.4909G>A	p.Ala1637Thr	Missense	0	0	0	0	0	0	0	VUS	VUS	VUS	VUS	0.100	VUS	0.675	LB	0.006
<i>MYH7</i>	c.5704G>C	p.Glu1902Gln	Missense	0	0	0	0	0	0	0	VUS	VUS	VUS	VUS	0.100	VUS	0.675	LB	0.006
<i>SHOC2</i>	c.-1C>T	n/a	5' UTR	0	0	0	0	0	0	0	VUS	VUS	VUS	VUS	0.100	VUS	0.675	LB	0.006