hNPAS2

Change	Individual	Freq	dbSNP
5'UTR-40	PF07,PF11	AA=57 AG=2 GG=0	new
IVS2-15	PF45	AA=0 AG=1 GG=62	new
IVS3+42	Common	CC=3 CT=20 TT=40	rs356651
IVS5-69	Common	AA=13 AG=21 GG=19	rs10207725
IVS5-69	PF43, PF35, PF37,PF34, PF56	AA=13 AC=5 CC=0	rs10207725
IVS5-69	PF23, PF10, PF16, PF33,PF50	CC=0 CG=5 GG=19	rs10207725
V218V	Common	AA=3 AG=17 GG=38	new
IVS10+21	Common	--=1 -+=11 ++=48	new
IVS11+5	Common	CC=51 CT=11 TT=1	rs2289950
IVS11+61	Common	AA=52 AG=9 GG=1	rs35503589
Y353Y	Common	CC=33 CT=13 TT=2	rs1562313
IVS12+28	PF23	AA=0 AG=1 GG=48	new
T394A	Common	AA=7 AG=26 GG=28	rs2305160
S409S	PF57	AA=0 AG=1 GG=60	new
IVS13+27	PF65	AA=0 AT=1 TT=60	new

IVS13+37	Common	AA=33 AC=23 CC=5	rs2305159
IVS13-76	PF39,PF61	GG=56 GT=2 TT=0	rs17025128
IVS14+32	PF65	GG=0 GT=1 TT=60	new
S471L	Common	CC=38 CT=16 TT=2	rs11541353
IVS15-16	Common	CC=35 CT=19 TT=5	rs2278727
IVS16+58	PF10,PF21	CC=56 CT=2 TT=0	new
A640A	PF23,PF50	AA=0 AG=2 GG=56	rs1053091
IVS18-34	PF65	AA=0 AG=1 GG=60	new
IVS19+53	PF12	AA=0 AG=1 GG=60	new
T710T	Common	CC=25 CT=23 TT=7	rs9223
IVS20+22	PF17	--=51 -+=1 ++=0	new
3'UTR	Common	AA=3 AG=8 GG=18	rs2305158

NPAS2 (end of list here); there is 1 gap that needs re-sequencing

Human ARNTL –isoform b

Change	Individual	Freq	dbSNP
IVS6+133	Common	CC=55 CT=5 TT=0	new
IVS6-137	PF42	AA=0 AG=1 GG=59	new
IVS7-8	PF11,PF21,PF23	CC=0 CT=3 TT=60	new
IVS9+30	PF31	AA=0 AC=1 CC=62	new
IVS10-53	PF37	AA=61 AG=1 GG=0	new
IVS17+59	Common	AA=2 AT=12 TT=48	new
IVS18-52	Common	CC=50 CT=12 TT=2	new

Human CLOCK

Change	Individual	Freq	dbSNP
IVS7-105	Common	CC=29 CT=23 TT=8	rs9312661
IVS8-68	Common	AA=27 AG=25 GG=8	rs3805151
IVS9+30	Common	AA=0 AG=5 GG=55	new
IVS10+79	Common	AA=25 AG=22 GG=7	rs1522112
S208C	Common	CC=51 CG=6 GG=0	rs34897046
IVS13-75	Common	--=23 -+=26 ++=10	rs10529254

IVS14-82	PF22	AA=59 AG=1 GG=0	new
IVS15-99	Common	AA=0 AG=7 GG=55	new
IVS15-54	Common	CC=5 CG=25 GG=32	rs11240
IVS16+116	Common	AA=25 AG=27 GG=10	rs2412647
IVS16+133	Common	GG=4 GT=27 TT=31	rs4864996
IVS16+201	Common	CC=7 CT=22 TT=26	rs4864995
IVS18-50	Common	CC=56 CT=7 TT=0	new
D528D	PF48	CC=61 CT=1 TT=0	rs34812164

**2 small gaps are being re-sequenced

Human Period1

Change	Individual	Freq	dbSNP
5'UTR	PF11	AA=0 AG=1 GG=44	new
N58N	PF41	CC=55 CT=1 TT=0	new
R158R	PF16,PF51	CC=59 CT=2 TT=0	rs35826160
T213T	Common	AA=33 AC=27 CC=2	rs3027178
IVS7+45	Common	--=17 -+=41 ++=0	rs35819953

IVS7-17	PF06,PF21,PF47	CC=59 CT=3 TT=0	new
IVS8+40	PF16,PF51	AA=0 AG=2 GG=60	new
IVS8-62	Common	CC=7 CT=38 TT=15	rs10462024
IVS11+13	Common	CC=0 CT=4 TT=55	rs2304911
IVS12-38	Common	CC=16 CG=31 GG=10	rs885747
IVS14+19	PF32	AA=0 AG=1 GG=48	new
A615A	PF48	CC=59 CT=1 TT=0	new
IVS19-14	PF16, PF51	--=60 -+=2 ++=0	new
IVS19-7	PF15	CC=61 CT=1 TT=0	new
IVS20+9	PF01	CC=61 CT=1 TT=0	new
IVS21+75	PF37	GG=58 GT=1 TT=0	rs3027197
IVS22+62	common	--=2 -+=35 ++=19	new

****amino acid #740-1024 will be re-sequenced**

Human Period2

Change	Individual	Freq	dbSNP
5'UTR	PF07	AA=0 AG=1 GG=58	new
5'UTR	Common	CC=51 CG=7 GG=1	rs2304672
IVS2-88	Common	AA=42 AC=17 CC=1	rs2304673
IVS3-43	Common	CC=23 CT=21 TT=2	rs10462023
IVS3-31	PF07	CC=45 CT=1 TT=0	rs13391269
IVS4-72	Common	CC=3 CT=26 TT=30	rs2304674
IVS4-28	Common	CC=54 CT=7 TT=1	rs13033501
IVS4-21	Common	--=54 -+=7 ++=1	rs3217472
IVS5+78	PF20,PF21	CC=53 CT=2 TT=0	rs2304675
IVS5-46	Common	CC=53 CT=7 TT=1	new
IVS6+39	Common	CC=52 CT=7 TT=0	rs2304676
IVS6-71	PF17,PF64	AA=0 AG=2 GG=58	new
IVS10+16	PF32	AA=61 AG=1 GG=0	new
IVS12-61	PF31	AA=0 AG=1 GG=61	new

IVS13+18	PF07	CC=61 CT=1 TT=0	new
A655A	Common	AA=51 AG=9 GG=1	rs2304669
A664A	Common	AA=1 AG=6 GG=54	rs2304670
S665S	Common	AA=1 AG=6 GG=54	rs2304671
IVS17+26	PF09	--=0 -+=1 ++=60	new
IVS17+29	PF09,PF51	GG=59 GT=2 TT=0	new
IVS17+30	PF51	CC=60 CT=1 TT=0	new
R820R	PF19,PF30	AA=0 AG=2 GG=54	new
V903I	Common	AA=0 AG=5 GG=57	rs35333999
G1244E	Common	AA=1 AG=20 GG=38	rs934945
Intronic	PF07	AA=58 AT=1 TT=0	rs10181662

*amino acids #1037-1092 need re-sequencing

Human CKIepsilon

Change	Individual	Freq	dbSNP
IVS5+34	PF53	AA=0 AG=1 GG=60	new
IVS7+24	PF07	AA=0 AG=1 GG=62	new

Human CSNK2A1

Change	Individual	Freq	dbSNP
IVS3+86	PF09	AA=0 AG=1 GG=53	rs6037828
IVS7-23	Common	CC=0 CT=3 TT=52	new
IVS8+78	Common	AA=9 AG=23 GG=22	rs157816
IVS9+20	PF13	--=0 -+=1 ++=55	new
IVS9-82	Common	--=27 -+=23 ++=10	new
IVS11-17	PF09,PF43	CC=58 CG=2 GG=0	new
IVS12+70	Common	AA=50 AG=8 GG=1	rs6116240
3' UTR	PF09,PF43	AA=0 AG=2 GG=58	new

Human CSNK2A2

Change	Individual	Freq	dbSNP
IVS4-122	Common	AA=52 AG=10 GG=0	rs3736397
IVS6-60	Common	CC=3 CT=14 TT=42	rs12920269
A194A	PF16	CC=58 CT=1 TT=0	new
IVS8-29	Common	GG=0 GT=8 TT=45	new

IVS9-58	Common	AA=3 AG=15 GG=39	rs2242444
IVS10+57	PF15	AA=55 AC=1 CC=0	new
IVS10-88	Common	CC=49 CG=6 GG=0	rs2279803

**amino acids #1-39 need to be re-sequenced

Human CSNK2B

Change	Individual	Freq	dbSNP
5'UTR	Common	AA=47 AC=10 CC=1	rs9267529
IVS2+25	PF10,PF59	GG=0 GT=2 TT=57	new

IVS2+163	PF10	CC=57 CG=1 GG=0	new
Y46Y	Common	CC=4 CT=18 TT=37	rs14365
3'UTR	Common	AA=30 AT=18 TT=7	rs5872
3'UTR	Common	CC=25 CT=23 TT=7	rs4569

Human Dec1

Change	Individual	Freq	dbSNP
5'UTR	Common	GG=9 GT=26 TT=15	rs3934983

5'UTR	PF05,PF12	AA=0 AG=2 GG=47	NA
IVS1+128	PF22	AA=0 AG=1 GG=44	NA
IVS2-107	PF41,PF62	AA=0 AG=2 GG=58	NA
3'UTR	PF25,PF27,PF59	AA=0 AG=3 GG=58	NA

****amino acids #11-29 need to be re-sequenced**

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Human FBXL3

Change	Individual	Freq	dbSNP
5'UTR	PF20,PF42	CC=0 CG=2 GG=60	new
IVS3+32	PF34,PF49,PF51	--=57 -+=3 ++=0	new
IVS3-9	Common	GG=26 GT=27 TT=10	rs599115
3"UTR	PF40	AA=61 AG=1 GG=0	new
3'UTR	Common	GG=0 GT=4 TT=58	new

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Human GSK3B

Change	Individuals	Freq	dbSNP
IVS1-85	Common	AA=30 AG=15 GG=6	rs12108149
IVS2-68	Common	AA=0 AG=13 GG=45	rs13312998

IVS4-10	PF61	CC=0 CT=1 TT=53	new
IVS5-157	Common	CC=15 CT=19 TT=19	rs6438552
IVS6+124	PF64	--=0 -+=1 ++=45	new
IVS7-148	Common	CC=47 CT=14 TT=0	rs1719895
IVS11-21	PF06	--=0 -+=1 ++=59	new
Intronic	PF31	CC=0 CT=1 TT=60	new

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Human Period3

Change	Individual(s)	Freq	dbSNP
IVS1+22	PF02,PF11,PF47	AA=0 AG=3 GG=60	rs697682
IVS2+49	Common	CC=32 CT=21 TT=8	rs228729
P205P	PF66	AA=0 AG=1 GG=62	new
IVS6-17	Common	--=8 -+=33 ++=17	rs34433622
IVS6-16	PF12,PF13	--=0 -+=2 ++=56	new
IVS7-15	Common	GG=3 GT=12 TT=42	rs34166146
IVS7+53	Common	CC=7 CT=31 TT=20	rs707465
IVS7+94	Common	AA=17 AG=0 GG=6	rs488728

IVS7-56	Common	AA=54 AT=7 TT=0	rs707467
IVS8+80	Common	CC=7 CT=38 TT=16	rs228642
IVS8-11	PF20,PF32	--=1 -+=2 ++=48	NA
IVS10-38	PF18,PF24,PF33	CC=60 CG=3 GG=0	rs228668
S445S	Common	CC=55 CT=8 TT=0	rs228669
IVS11+63	PF18,PF24,PF33	AA=0 AC=3 CC=60	rs228670
IVS11-80	Common	CC=47 CT=13 TT=3	rs228671
IVS12+88	Common	AA=58 AC=5 CC=0	new
IVS12-100	PF17	AA=63 AT=1 TT=0	new
IVS12-23	Common	CC=50 CT=11 TT=2	rs228690
IVS14-58	Common	AA=6 AG=32 GG=23	rs228691
V639G	Common	GG=2 GT=12 TT=47	rs10462020
IVS15+12	Common	AA=1 AG=9 GG=52	rs228692
IVS15-116	Common	AA=3 AG=22 GG=38	rs697693
L664F	PF40,PF57	CC=0 CG=2 GG=61	new
IVS16-74	PF13	CC=0 CT=1 TT=62	new

P745P	Common	AA=7 AG=34 GG=22	rs2859387
L827P	PF18,PF24,PF33	CC=60 CT=3 TT=0	rs228696
P856A	Common	CC=47 CG=13 GG=3	rs228697
S864S	Common	AA=0 AG=5 GG=58	rs17031614
IVS17+51	Common	AA=56 AG=7 GG=0	rs2640908
IVS17-93	Common	CC=7 CG=25 GG=29	rs228701
T969T	Common	CC=40 CT=19 TT=3	rs12121492
T974T	PF29	AA=0 AG=1 GG=61	rs12121492
A1007-S1024 del	Common	--=30 -+=25 ++=7	not found in dbSNP, but characterized in literature
T1010T	Common	AA=0 AG=16 GG=5	rs12023156
M1028T	Common	CC=8 CT=22 TT=32	rs2640909
IVS18+43	Common	AA=7 AG=25 GG=30	rs1773135
H1149R	Common	AA=45 AG=11 GG=2	rs10462021
IVS20+19	Common	AA=3 AG=12 GG=43	rs228654

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Human PKCA

Change	Individual	Freq	dbSNP
IVS4+82	PF35	CC=61 CT=1 TT=0	new
IVS5+33	PF29	AA=0 AG=1 GG=62	new
L277L	Common	AA=10 AG=29 GG=20	rs2227857
IVS10+33	Common	CC=53 CT=9 TT=1	rs3889874
IVS11+68	PF31,PF61	--=0 -+=2 ++=60	new
IVS11-60	Common	AA=20 AT=29 TT=14	rs3803821
V568I	PF31,PF61,PF63	AA=60 AG=3 GG=0	rs6504459
IVS15-18	Common	CC=1 CT=5 TT=48	new
E593E	Common	AA=1 AG=5 GG=49	new
IVS16-101	Common	--=50 -+=7 ++=0	new
3'UTR	PF18,PF46	CC=55 CT=2 TT=0	new

**two small gaps need re-sequencing still

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Human PRKAA1

Change	Individual	Freq	dbSNP
IVS1-104	Common	AA=13 AG=5 GG=1	NA
IVS2+14	Common	--=8 -+=10 ++=1	NA
IVS3+13	PF47	AA=0 AG=1 GG=49	NA
IVS7+110	Common	AA=3 AG=20 GG=32	rs1002423

**amino acids #44-89 need to be re-sequenced

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Human PRKAA2

Change	Individual	Freq	dbSNP
L37L	Common	AA=53 AG=3 GG=0	new
IVS2+161	PF29	--=0 -+=1 ++=58	new
R117R	Common	AA=0 AG=6 GG=50	rs17848595
H150H	Common	CC=54 CT=3 TT=0	rs17848596
IVS5-59	Common	AA=0 AG=3 GG=47	rs35403608
IVS6-111	PF27,PF40,PF43	AA=58 AG=3 GG=0	new
IVS7+81	Common	CC=14 CT=31 TT=16	rs932447

IVS7+87	PF27	AA=0 AG=1 GG=60	new
IVS8-87	Common	CC=48 CT=5 TT=0	rs17848597
IVS8-33	PF47	CC=52 CT=1 TT=0	new

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Human RAB3A

Change	Individual	Freq	dbSNP
IVS2-130	PF50	CC=55 CT=1 TT=0	new
A95A	Common	CC=6 CT=26 TT=25	rs1046565
IVS3+26	Common	CC=6 CT=26 TT=25	rs3803919
IVS4-38	Common	AA=6 AG=24 GG=22	rs8109807
N171N	PF49	CC=51 CT=1 TT=0	new
3' UTR	PF08	CC=52 CT=1 TT=0	new