MTHFR GENETICS UK

FOCUS & MOTIVATION

SLEEP QUALITY

	Gene	rsID	Minor Allele	Genotype	Phenotype
1	AANAT	rs11077820	C	TT	-/-
2	ALDH2	rs16941667	T	CT	+/-
3	ALDH2	rs2238151	T	CT	+/-
4	ALDH2	rs441	C	CT	+/-
5	ALDH2	rs4646778	A	AC	+/-
6	ALDH2	rs4648328	T	CT	+/-
7	ALDH2	rs671	A	GG	-/-
8	ALDH2	rs968529	T	CC	-/-
9	ALDH3A2	rs72547566	T	CC	-/-
10	ANK3	rs10761482	T	CT	+/-
11	ANK3	rs10994336	T	CC	-/-
12	ANK3	rs11599164	T	GG	-/-
13	ANK3	rs1938526	G	AA	-/-
14	ANK3	rs9804190	T	CC	-/-
15	ANKK1	rs11604671	A	GG	-/-
16	ANKK1	rs1800497	A	AG	+/-
17	CACNA1C	rs1006737	A	GG	-/-
18	CACNA1C	rs2159100	T	CC	-/-
19	CACNA1C	rs216013	G	AA	-/-
20	CACNA1C	rs2302729	T	CC	-/-
21	COMT	rs1544325	A	AG	+/-
22	COMT	rs165599	G	AA	-/-
23	COMT	rs165774	A	GG	-/-
24	COMT	rs174675	T	CC	-/-
25	COMT	rs174696	C	TT	-/-
26	COMT	rs174699	C	TT	-/-
27	COMT	rs4646312	C	CC	+/+
28	COMT	rs4646316	T	TT	+/+

	Gene	rsID	Minor Allele	Genotype	Phenotype
29	COMT	rs5993883	G	GT	+/-
30	COMT	rs9332377	T	CC	-/-
31	DBH	rs1108580	G	GG	+/+
32	DBH	rs1108581	G	AG	+/-
33	DBH	rs1541332	G	AG	+/-
34	DBH	rs1611115	T	CC	-/-
35	DBH	rs1611123	T	TT	+/+
36	DBH	rs1611125	T	TT	+/+
37	DBH	rs2007153	T	CT	+/-
38	DBH	rs2097628	G	AA	-/-
39	DBH	rs2283123	T	CC	-/-
40	DBH	rs2519152	C	CC	+/+
41	DBH	rs2519154	T	TT	+/+
42	DBH	rs2519155	C	CT	+/-
43	DBH	rs2797853	T	CT	+/-
44	DBH	rs2873804	C	CT	+/-
45	DBH	rs4531	T	GG	-/-
46	DBH	rs5324	A	GG	-/-
47	DBH	rs77905	A	AA	+/+
48	DDC	rs10499695	C	CC	+/+
49	DDC	rs11575542	T	CC	-/-
50	DDC	rs1451371	C	CC	+/+
51	DDC	rs1451375	A	AC	+/-
52	DDC	rs2167364	C	TT	-/-
53	DDC	rs2242041	G	CC	-/-
54	DDC	rs3735273	T	CC	-/-
55	DDC	rs3829897	G	GT	+/-
56	DDC	rs6263	C	TT	-/-
57	DDC	rs732215	C	CC	+/+
58	DDC	rs921451	C	CT	+/-
59	DHFR	rs1643649	C	TT	-/-
60	DHFR	rs1643659	C	TT	-/-
61	DHFR	rs1677693	T	GG	-/-
62	DRD1	rs265981	A	GG	-/-
63	DRD1	rs4532	C	TT	-/-
64	DRD1	rs5326	T	CC	-/-
65	DRD1	rs686	G	AA	-/-

	Gene	rsID	Minor Allele	Genotype	Phenotype
66	DRD2	rs1076560	A	AC	+/-
67	DRD2	rs1076563	C	AA	-/-
68	DRD2	rs1079596	T	CT	+/-
69	DRD2	rs1079597	T	CT	+/-
70	DRD2	rs1079727	C	CT	+/-
71	DRD2	rs11214606	T	CC	-/-
72	DRD2	rs1125394	C	CT	+/-
73	DRD2	rs12364283	G	AA	-/-
74	DRD2	rs17529477	A	AG	+/-
75	DRD2	rs1799978	C	TT	-/-
76	DRD2	rs2283265	A	AC	+/-
77	DRD2	rs2440390	T	CT	+/-
78	DRD2	rs2471857	T	CT	+/-
79	DRD2	rs2734838	G	AA	-/-
80	DRD2	rs4245146	T	CT	+/-
81	DRD2	rs4274224	G	AG	+/-
82	DRD2	rs4436578	C	TT	-/-
83	DRD2	rs4581480	C	TT	-/-
84	DRD2	rs4620755	A	GG	-/-
85	DRD2	rs4648317	A	GG	-/-
86	DRD2	rs4648318	C	CT	+/-
87	DRD2	rs4648319	A	AG	+/-
88	DRD2	rs4936270	T	CC	-/-
89	DRD2	rs4938019	C	TT	-/-
90	DRD2	rs6277	A	GG	-/-
91	DRD2	rs7131056	A	AC	+/-
92	DRD3	rs10934256	A	CC	-/-
93	DRD3	rs1486009	G	AG	+/-
94	DRD3	rs167771	G	AG	+/-
95	DRD3	rs2630349	A	GG	-/-
96	DRD3	rs2630351	A	GG	-/-
97	DRD3	rs324029	A	AG	+/-
98	DRD3	rs3773678	A	GG	-/-
99	DRD3	rs6280	C	CT	+/-
100	DRD3	rs9288993	G	AA	-/-
101	DRD3	rs963468	A	GG	-/-
102	DRD3	rs9824856	C	AA	-/-

	Gene	rsID	Minor Allele	Genotype	Phenotype
103	DRD4	rs11246226	C	AA	-/-
104	DRD4	rs1800443	G	TT	-/-
105	DRD4	rs3758653	C	TT	-/-
106	DRD4	rs916457	T	CC	-/-
107	GCH1	rs12147422	C	TT	-/-
108	GCH1	rs2878169	T	GG	-/-
109	GCH1	rs3783637	T	CC	-/-
110	GCH1	rs3783641	A	AT	+/-
111	GCH1	rs3783642	C	CT	+/-
112	GCH1	rs4411417	C	CC	+/+
113	GCH1	rs7147286	A	AG	+/-
114	GCH1	rs7492600	T	GG	-/-
115	GCH1	rs752688	T	TT	+/+
116	GCH1	rs8017210	A	AG	+/-
117	GCH1	rs998259	T	CC	-/-
118	MIR4761	rs2239393	G	GG	+/+
119	MIR4761	rs6269	G	GG	+/+
120	MIR4761	rs740601	G	GG	+/+
121	MIR4761 (COMT -61 P199P)	rs769224	A	GG	-/-
122	MIR4761 (COMT H62H)	rs4633	T	CC	-/-
123	MIR4761 (COMT V158M)	rs4680	A	GG	-/-
124	MSH3	rs1650697	A	GG	-/-
125	SNP?	rs10483639	C	CC	+/+
126	SNP?	rs2242592	G	AG	+/-
127	SNP?	rs8007267	T	CT	+/-

A gene variant report is a graphical representation of genetic raw data, displayed as a color coded chart. Phenotypes are determined based on the presence or absence of variant alleles in your genotype. Alleles are considered variant if they are the minor allele i.e they occur with less frequency (MAF) in the default global population. Having "no variant" alleles (green) is not necessarily "normal" or protective, and having a homozygous phenotype (red) is not always "abnormal". What is a normal or abnormal phenotype should NOT be determined solely based on this variance report. The significance of your phenotypes should be assessed by reviewing related genome wide studies for context and in consultation with a qualified health practitioner or genetics specialist. All alleles are reported in reference to the foward strand. rsIDs and genotype information are obtained from the genetic raw data prepared by your personal genomic serivce. Minor allele frequency (MAF), RefSNP and gene variation/SNP names are obtained directly from dbSNP which is a free public archive for genetic variation maintained by the NCBI http://www.ncbi.nlm.nih.gov/snp/.

Do not make any decisions about your health solely based on the information contained in this report. Always consult with a licensed and experienced health practitioner when you recieve your report

ALDH2 [+/-]

Breastfeeding offers many benefits to your baby. Breast milk contains the right balance of nutrients to help your infant grow into a strong and healthy toddler. Some of the nutrients in breast milk also help protect your infant against some common childhood illnesses and infections. It may also help your health. Certain types of cancer may occur less often in mothers who have breastfed their babies.Women who don't have health problems should try to give their babies breast milk for at least the first six months of life. There are some cases when it's better not to breastfeed. If you have HIV or active tuberculosis, you should not breastfeed because you could give the infection to your baby. Certain medicines, illegal drugs, and alcohol can also pass through the breast milk and cause harm to your baby.If you are having problems with breastfeeding, contact a lactation consultant.NIH: National Institute of Child Health and Human Development

ANK3 [+/-]

Developmental disabilities are severe, long-term problems. They may be physical, such as blindness. They may affect mental ability, such as learning disorders. Or the problem can be both physical and mental, such as Down syndrome. The problems are usually life-long, and can affect everyday living. There are many causes of developmental disabilities, includingGenetic or chromosome abnormalities. These cause conditions such as Down syndrome and Rett syndrome.Prenatal exposure to substances. Drinking alcohol when pregnant can cause fetal alcohol spectrum disorders.Certain viral infections during pregnancyPreterm birthOften there is no cure, but treatment can help the symptoms. Treatments include physical, speech, and occupational therapy. Special education classes and psychological counseling can also help.NIH: National Institute of Child Health and Human Development

COMT [+/-]

The characteristic signs and symptoms of 22q11.2 deletion syndrome result from a deletion of a small piece of chromosome 22. The chromosomal region that is typically deleted contains 30 to 40 genes, including the COMT gene. As a result of the deletion, people with this disorder have only one copy of the COMT gene in each cell instead of the usual two copies. A loss of one copy of the COMT gene in each cell leads to abnormal regulation of catechol-O-methyltransferase levels in the brain. Researchers believe that changes involving this enzyme in the prefrontal cortex may help explain the increased risk of behavioral problems and mental illness associated with 22q11.2 deletion syndrome. Little is known, however, about the relationship between catechol-O-methyltransferase activity and the specific mental and emotional problems characteristic of this condition. People with 22q11.2 deletion syndrome are much more likely than people without the condition to develop schizophrenia, depression, anxiety, and bipolar disorder.

DBH [+/+]

At least six mutations in the DBH gene have been found to cause dopamine \u03b2-hydroxylase deficiency. The most common mutation (usually written as IVS1+2T>C) interferes with the normal processing of dopamine \u03b2-hydroxylase. As a result of this mutation, an abnormally short, nonfunctional version of the enzyme is produced. A lack of functional dopamine \u03b2-hydroxylase leads to a shortage of norepinephrine, which causes difficulty with regulating blood pressure and other autonomic nervous system problems seen in dopamine \u03b2-hydroxylase deficiency.

DDC [+/+]

Mutations in the DDC gene result in reduced activity of the AADC enzyme. Without enough of this enzyme, nerve cells produce less dopamine and serotonin. Dopamine and serotonin are necessary for normal nervous system function, and changes in the levels of these neurotransmitters contribute to the developmental delay, intellectual disability, abnormal movements, and autonomic dysfunction seen in people with AADC deficiency.

DRD2 [+/-]

Imagine if parts of your body moved when you didn't want them to. If you have a movement disorder, you experience these kinds of impaired movement. Dyskinesia is abnormal uncontrolled movement and is a common symptom of many movement disorders. Tremors are a type of dyskinesia. Nerve diseases cause many movement disorders, such as Parkinson's disease. Other causes include injuries, autoimmune diseases, infections and certain medicines. Many movement disorders are inherited, which means they run in families.Treatment varies by disorder. Medicine can cure some disorders. Others get better when an underlying disease is treated. Often, however, there is no cure. In that case, the goal of treatment is to improve symptoms and relieve pain.

DRD3 [+/-]

Tremors are unintentional trembling or shaking movements in one or more parts of your body. Most tremors occur in the hands. You can also have arm, head, face, vocal cord, trunk, and leg tremors. Tremors are most common in middle-aged and older people, but anyone can have them.The cause of tremors is a problem in the parts of the brain that control muscles in the body or in specific parts of the body, such as the hands. They commonly occur in otherwise healthy people. They may also be caused by problems such asParkinson's diseaseDystoniaMultiple sclerosisStrokeTraumatic brain injuryAlcohol abuse and withdrawalCertain medicinesSome forms are inherited and run in families. Others have no known cause. There is no cure for most tremors. Treatment to relieve them depends on their cause. In many cases, medicines and sometimes surgical procedures can reduce or stop tremors and improve muscle control. Tremors are not life threatening. However, they can be embarrassing and make it hard to perform daily tasks.NIH: National Institute of Neurological Disorders and Stroke

GCH1 [+/-]

More than 140 mutations in the GCH1 gene have been found to cause dopa-responsive dystonia. This condition is characterized by a pattern of involuntary muscle contractions (dystonia), tremors, and other uncontrolled movements and usually responds to treatment with a medication called L-Dopa. Dopa-responsive dystonia results when one copy of the GCH1 gene is mutated in each cell. Most GCH1 gene mutations that cause this condition change single amino acids in the GTP cyclohydrolase 1 enzyme. Researchers believe that the abnormal enzyme may interfere with the activity of the normal version of GTP cyclohydrolase 1 that is produced from the copy of the gene with no mutation. As a result, the amount of working enzyme in affected individuals is reduced by 80 percent or more. A reduction in functional GTP cyclohydrolase 1 enzyme causes less dopamine and serotonin to be produced, leading to the movement problems and other characteristic features of dopa-responsive dystonia.

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Do not make any decisions about your health solely based on the information contained in this report. Always consult with a licensed and experienced health practitioner when you recieve your report