

Gene Name	Description	Wild-type organoids										DISC1 exon 8 wt/mut organoids									
		210	29	51	218	63	59	70	150	148	136	23	84	685	51	41					
OLFM1	A Domain	210	29	51	218	63	59	70	150	148	136	23	84	685	51	41					
ABCA7	ABCA7	34	162	148	21	123	66	147	95	70	82	123	14	46	142	139					
ADAM10	ADAM10	54	83	115	108	171	69	102	93	79	92	140	45	28	75	86					
ADAM19	ADAM19	95	134	61	17	106	111	176	73	50	103	95	70	186	55	69					
ADAM9	ADAM9	42	96	116	127	157	77	86	102	70	85	127	35	41	46	51					
APP	APP	39	99	166	58	97	110	130	267	633	413	647	17	11	10	17					
APLP1	APLP1	38	152	139	59	68	115	130	115	105	63	73	47	25	102	122					
APLP2	APLP2	50	103	124	88	146	82	107	110	73	145	177	55	60	78	83					
APOE	APOE	44	98	87	72	159	103	136	121	117	168	221	75	55	76	93					
LRP8	APOE2	29	136	110	109	114	86	115	103	104	222	262	22	72	176	239					
APP	APP-695	43	124	146	70	104	97	117	88	84	123	149	42	42	86	101					
APP	APP-770	26	130	148	65	104	99	128	74	48	151	185	35	33	90	94					
APP	APP-KPI	28	110	132	73	112	108	138	87	58	147	165	41	25	93	114					
ATF3	ATF3	74	70	66	169	168	59	94	200	222	74	157	108	49	95	98					
AXIN2	AXIN2	43	168	132	80	99	77	100	79	68	76	98	22	32	50	67					
OLFM1	Pancorlin B/M Don	77	210	109	50	68	55	132	174	231	241	128	361	585	257	395					
BACE1	BACE1	89	119	117	78	130	85	103	103	74	112	121	53	48	66	72					
BACE2	BACE2	22	172	176	45	108	74	103	145	128	15	99	48	3	52	64					
BIN1	BIN1	32	152	126	99	107	75	109	104	105	68	134	45	1	57	85					
POU3F2	BRN2	26	99	70	128	127	123	126	37	20	18	42	56	74	43	102					
CCND2	CCND2	39	116	148	93	110	85	110	83	60	99	120	35	37	50	59					
BCL11B	CTIP2	53	113	153	110	82	111	78	172	120	73	78	50	72	8	51					
CUX2	CUX2	63	111	119	39	64	142	163	111	47	22	103	26	85	153	166					
CALB1	Calbindin	70	74	108	46	170	110	121	138	239	447	843	2330	712	1329	1372					
CALB2	Calretinin	87	65	52	118	116	116	146	79	66	31	52	11	119	22	7					
CUX1	Cux1	66	118	130	69	106	92	119	91	94	98	139	57	30	73	84					
CCND1	CyclinD1	63	109	94	86	106	118	125	116	111	111	124	125	54	111	157					
DAB1	DAB1	31	78	122	155	81	90	143	99	144	11	120	13	4	107	107					
DAB2	DAB2	77	108	110	102	122	68	112	107	93	91	105	59	8	32	43					
DCX	DCX	58	92	116	127	90	110	107	197	165	25	20	52	78	115	123					
DISC1	DISC1 L+Lv	75	157	146	27	107	87	101	42	26	26	31	31	101	41	14					
DISC1	DISC1 Lv	101	148	141	135	9	102	64	91	10	33	60	12	137	96	39					
DIXDC1	DIXDC1	74	117	130	103	109	53	114	112	91	65	124	88	31	74	109					
SLC1A3	EAA1T1	12	109	107	130	181	62	99	124	84	136	141	38	29	70	52					
SLC1A2	EAA2T1	55	60	67	154	97	168	98	108	25	20	5	23	75	69	43					
SLC1A1	EAA3T3	79	78	97	142	176	50	78	125	153	109	125	57	3	99	60					
EPHA1	EPHA1	50	99	138	12	53	143	205	52	64	273	303	71	44	105	132					
ERBB4	ERBB4	92	63	112	163	141	61	68	71	95	57	132	13	14	24	10					
APBB1	FE65	32	165	131	73	107	79	114	123	120	103	91	63	36	86	107					
FOXP2	FOXP2	148	106	82	131	91	94	48	222	200	15	44	91	67	89	78					
FEZF2	Fezf2	108	38	44	39	75	227	169	135	267	681	721	146	160	553	544					
FOXP1	FoxG1	131	16	82	177	64	194	58	17	13	46	103	286	16	1533	1400					
GAD1	GAD1	52	120	76	19	152	102	179	52	113	182	248	178	71	159	175					
GLRB	GLRB	100	123	126	110	106	75	61	419	497	66	68	272	87	221	212					
GRIA2	GRIA2	107	113	134	41	122	75	109	247	205	15	69	74	5	281	176					
GRIK1	GRIK1	109	125	99	29	214	77	47	52	16	36	56	59	149	39	21					
GRIN2A	GRIN2A	51	149	203	41	107	58	91	44	31	176	87	19	27	31	18					
GSK3B	GSK3b	19	131	134	104	127	80	105	136	140	99	133	76	22	143	151					
HES1	HES1	85	124	114	91	105	81	100	124	141	60	93	86	28	72	93					
HES5	HES5	24	334	101	40	76	79	47	64	104	99	101	10	3	121	107					
B3GAT1	HNK1	38	176	118	18	113	123	115	299	336	24	94	234	93	270	306					
HOXA1	HOXA1	132	225	168	48	23	20	84	154	153	46	199	71	179	11	51					
HOXA2	HOXA2	60	180	115	67	68	100	126	183	26	23	117	270	25	68	68					
HOXB13	HOXB1	80	108	73	50	124	156	109	177	36	196	129	274	109	76	119					
HSPA1A	HSPA1A	18	101	91	43	124	125	199	86	74	180	136	176	122	232	262					
HOXB4	HoxB4	47	96	110	94	187	63	104	97	65	116	135	47	26	16	20					
IRX3	Irx3	35	179	190	59	87	71	79	65	56	135	114	5	13	33	39					
ISL1	Isl1	84	76	83	174	104	97	83	275	286	30	41	98	61	86	120					
PAFAH1B1	LIS1	48	77	100	161	125	83	106	146	111	105	97	64	55	101	120					
LMX1A	LMX1A	26	112	112	121	140	96	93	62	97	101	130	68	111	69	66					
OLFM1	M domain	96	122	100	126	91	87	79	337	360	14	44	146	14	127	127					
MAP2	MAP2	27	65	87	162	149	106	103	134	165	32	45	98	27	97	115					
NDL1	NDL1	68	96	108	113	125	93	98	97	106	118	164	79	10	62	92					
NFKB1	NFKB1	9	144	141	85	105	71	116	156	144	42	129	94	23	121	148					
SLC9A6	NHE9	41	140	108	85	142	76	109	75	99	39	123	74	154	118	128					
SLC9A9	NHE9	78	126	137	141	78	83	58	155	171	16	56	89	69	48	42					
SLC12A2	NKCC1	34	140	110	94	91	97	133	136	87	94	121	74	46	99	118					
NPY	NPY	97	182	182	136	65	22	38	40	40	74	126	8	11	14	15					
NRG1	NRG1	16	109	81	142	96	118	137	165	184	90	99	181	160	224	268					
NES	Nestin	20	163	170	55	78	82	131	100	88	83	115	61	20	116	152					
NEUROD1	NeuroD1	109	44	60	224	134	65	64	440	457	18	11	138	82	80	102					
NEUROG1	Neurogenin1	84	108	53	49	120	137	149	515	386	8	28	158	32	223	301					
POU5F1	Oct4	2	39	42	1	65	220	331	18	53	378	659	362	98	237	286					
PDE4B	PDE4B	249	93	88	71	91	21	88	109	87	9	41	52	40	28	49					
PICALM	PICALM	75	102	101	127	150	69	76	131	118	86	115	77	94	85	94					
DLG4	PSD-95	41	145	124	79	109	94	107	115	107	104	144	68	21	126	158					
PSEN1	PSEN1	52	128	134	76	106	93	111	103	100	88	120	78	48	125	133					
PSEN2	PSEN2	45	138	133	77	154	46	108	200	247	78	111	98	189	114	131					
RELN	Reelin	25	100	195	55	109	70	96	45	21	146	124	12	24	14	11					
S100B	S100b	241	66	66	209	71	20	27	199	260	1	12	242	0	14	14					
SORL1	SORL1	8	148	139	17	95	126	167	32	28	226	205	64	34	134	162					
SYP	SYP	48	126	120	17	38	226	124	212	152	49	16	20	65	287	308					
SATB1	Satb1	60	82	101	118	126	98	116	126	99	110	123	68	40	93	126					
SIX3	Six3	113	73	95	30	55	168	166	93	177	37	161	61	322	1232	1602					
SOX1	Sox1	35	96	69	13	105	166	217	59	65	122	294	47	99	130	210					
SOX2	Sox2	28	101	67	58	100	158	190	106	129	172	250	206	97	438	591					
SYN1	Synapsin	496	71	22	29	8	48	25	39	54	65	33	83	390	12	4					
ADAM17	TACE/ADAM17	43	99	106	124	143	86	100	117	107	91	136	91	55	117	145					
MAP7	TAU 3R	67	155	114	64	74	115	110	165	141	46	80	51	16	68	101					
MAP7	TAU ALL	35	144	138	88	70	130	116	143	143	43	46	47	76	69	123					
TSNAX	TSNAX ex3/4	116	80	74	178	167	41	44	133	159	69	84	115	107	61	57					
TWIST1	TWIST1	117	111	83	173	94															

Gene Name	Description	Wild-type DMSO										Wild-type CHR9821										DISC1 exon 8 w/mt DMSO																	
DLFM1	A domain	0.6	0.8	0.8	0.9	0.6	1.2	1.3	0.6	0.8	1.7	1.9	1.3	0.9	1.0	0.7	0.7	0.6	0.7	0.5	0.8	1.0	0.6	0.6	1.0	0.9	0.9	0.5	0.7	0.6	0.8	0.4	1.1	1.2	1.1	1.3	1.6	2.3	0.2
ABCAC7	ABCAC7	1.0	1.0	1.0	1.1	1.0	0.9	1.5	1.2	0.7	0.8	1.2	1.1	1.0	1.2	1.3	1.4	2.1	2.1	2.3	1.9	1.2	1.7	1.2	1.0	1.2	1.5	1.6	1.1	1.4	1.4	1.0	1.1	1.3	1.4	1.0	1.1	2.0	
ADAM10	ADAM10	0.8	0.8	1.1	1.0	0.8	0.8	1.1	1.1	1.0	1.1	1.0	1.1	1.0	1.1	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	
ADAM9	ADAM9	0.9	1.0	0.9	1.0	1.0	1.1	0.9	1.5	1.4	0.8	1.4	0.8	1.0	0.3	0.7	0.4	4.7	4.5	3.9	4.7	4.1	4.1	4.3	5.7	3.7	3.4	5.2	3.7	1.9	2.2	1.9	2.1	2.1	2.4	1.3	0.0		
ADAM8	ADAM8	0.9	0.8	0.7	0.8	0.7	1.2	1.1	1.1	0.8	0.9	1.1	1.4	1.4	1.5	1.4	2.6	2.6	2.8	2.0	3.8	3.5	1.9	2.2	2.8	3.2	2.8	3.8	3.1	5.0	1.3	1.4	1.3	1.1	1.1	1.1	2.3		
APP	APP	0.4	0.2	0.5	0.1	3.1	0.1	3.2	0.0	0.0	4.1	2.8	0.1	0.0	0.0	0.2	0.2	0.2	0.2	0.1	0.1	0.4	0.6	0.2	1.0	0.3	0.6	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
APLP1	APLP1	1.0	1.1	1.0	1.2	0.8	0.8	1.1	1.1	1.0	1.1	1.0	1.3	1.4	0.8	0.8	0.9	0.9	1.0	0.9	0.7	0.7	0.9	0.6	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8			
APLP2	APLP2	0.8	0.8	0.8	0.8	1.1	1.1	1.3	1.0	1.0	1.1	1.2	1.2	1.2	1.2	2.2	2.2	2.6	2.6	1.7	1.4	1.2	1.1	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1		
APOE	APOE	0.4	0.4	0.3	1.2	1.0	0.5	0.4	1.9	1.9	0.9	1.0	1.3	1.0	0.6	0.1	5.8	5.2	5.5	5.3	3.5	5.0	4.2	4.2	5.1	5.3	5.5	4.1	5.4	4.9	5.1	1.2	1.3	1.1	2.1	1.7	1.9		
LRP8	APOER2	0.7	0.8	0.8	0.7	0.8	0.9	1.5	1.7	0.7	0.6	1.0	1.8	1.8	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.5	0.5	0.6	0.5	0.5	0.6	1.2	1.2	1.1	0.7	0.9	1.0	1.3				
APP	APP-695	0.8	0.8	0.8	0.7	0.8	0.9	1.3	1.5	1.0	1.1	1.3	1.4	1.5	1.4	1.5	2.0	2.1	2.0	2.6	2.0	3.3	3.2	2.4	2.6	3.3	2.9	2.4	2.7	2.6	3.0	1.3	1.3	1.4	1.4	1.5			
APP	APP-770	0.7	0.7	0.7	0.6	0.9	0.9	1.5	1.7	1.0	1.0	1.2	1.1	1.1	1.1	1.4	4.2	4.3	5.8	5.8	5.9	8.6	5.7	12.3	12.1	7.0	8.1	11.7	11.0	9.1	9.0	8.7	11.1	1.6	1.7	1.5	2.1	2.3	2.4
APP	APP498	0.7	0.7	0.7	0.6	0.8	0.8	1.4	1.6	0.9	1.0	1.3	1.3	1.3	2.1	2.1	3.2	3.2	3.4	3.7	2.7	5.0	4.8	3.4	4.2	3.5	3.6	4.2	4.1	4.6	1.4	1.5	1.3	1.6	1.8	2.1			
ATF3	ATF3	0.6	0.5	0.6	0.7	0.7	0.6	1.8	2.1	0.4	0.5	2.2	1.4	1.8	1.1	1.1	1.1	1.3	1.3	1.1	0.4	0.5	0.6	0.7	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9			
AXIN2	AXIN2	1.1	1.1	1.2	0.8	0.8	1.6	1.5	0.8	1.4	1.3	0.6	0.6	0.6	2.3	2.3	5.1	5.0	4.9	2.3	1.9	2.6	2.6	3.5	3.5	2.4	2.5	2.1	4.2	3.7	2.5	1.1	1.2	1.3	1.1	1.0	1.2		
DLFM1	BM Domain	0.6	0.6	0.6	0.6	0.8	0.8	0.8	1.0	1.4	1.6	1.1	1.3	1.5	0.5	0.5	0.6	0.6	0.6	0.4	0.4	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5		
BACE1	BACE1	1.0	1.0	1.1	1.0	1.2	1.0	0.8	1.1	1.3	0.7	0.9	1.1	1.4	2.4	2.3	1.9	1.9	1.9	2.2	1.9	2.4	2.3	1.8	2.0	2.1	2.6	2.2	2.0	2.6	1.3	1.1	1.0	1.2	1.1	1.2	1.1		
BACE2	BACE2	0.9	0.8	0.7	1.1	1.0	0.9	1.4	1.2	0.9	0.8	1.3	1.3	1.0	0.9	1.0	0.8	0.8	1.1	1.0	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7		
BN1	BN1	0.6	0.6	0.6	1.0	0.9	0.6	0.5	1.9	1.7	0.7	1.9	1.4	1.2	1.4	1.3	1.1	1.1	1.2	1.2	1.7	2.8	2.8	1.9	2.0	3.2	3.4	2.5	1.7	1.7	1.0	0.9	0.9	0.9	1.3	1.4	1.2		
POU3F3	BRN1	1.0	1.1	1.1	1.2	1.0	0.8	0.9	0.7	1.3	1.2	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
POU3F2	BRN2	0.9	0.9	0.7	0.8	0.7	0.7	0.6	1.1	1.0	0.8	0.8	1.2	1.9	2.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1			
CCND2	CCND2	1.1	1.1	1.2	1.1	1.1	1.0	1.3	1.3	0.8	0.8	0.8	0.8	2.2	2.1	2.4	4.6	4.3	4.1	4.2	3.1	5.2	4.5	3.3	4.1	4.9	5.7	4.6	6.6	5.5	7.7	1.3	1.4	1.4	1.3	1.4			
CNTN1	CNTN1	0.9	0.9	1.1	0.9	1.0	1.0	0.8	0.9	1.4	1.2	0.7	0.8	1.0	1.4	1.2	1.0	1.0	1.4	1.3	0.8	0.8	1.5	1.3	1.0	1.6	1.1	1.0	1.6	1.0	1.5	1.4	1.2	1.3	1.2	1.3			
COX2	COX2	0.5	0.5	0.6	0.7	0.6	0.4	0.3	2.3	4.6	0.3	0.4	1.2	0.5	0.6	0.9	1.0	2.4	2.8	2.8	1.2	1.4	1.1	0.6	3.0	2.7	2.3	1.7	1.2	3.9	4.3	3.0	3.4	2.0	2.5	2.7	1.7		
BCL11B	CTP2	1.7	1.8	0.5	0.3	0.4	2.2	2.1	0.3	0.3	1.2	1.1	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3				
CUX2	CUX2	1.4	1.4	1.5	0.9	1.0	1.8	1.5	0.6	0.5	1.1	1.1	0.6	0.5	0.7	0.8	0.7	1.6	1.5	1.4	1.0	1.1	1.7	1.8	1.2	0.8	0.7	1.0	1.1	0.9	1.0	1.2	0.7	0.6	0.7	0.5			
CALB1	Calbindin	0.6	0.6	0.6	0.5	0.5	1.5	1.8	0.4	1.9	2.1	0.6	0.7	0.6	0.6	0.7	0.7	0.8	0.8	0.4	0.8	1.0	0.9	1.1	1.4	0.8	0.8	0.9	0.5	1.1	1.0	0.9	1.6	1.8	1.6	1.5			
CALB2	Calbindin	0.6	0.6	0.6	0.5	0.5	1.5	1.8	0.4	1.9	2.1	0.6	0.7	0.6	0.6	0.7	0.7	0.8	0.8	0.4	0.8	1.0	0.9	1.1	1.4	0.8	0.8	0.9	0.5	1.1	1.0	0.9	1.6	1.8	1.6	1.5			
CUX1	Cux1	1.1	1.1	1.1	0.8	0.9	0.9	0.8	1.1	1.2	0.8	0.8	1.2	1.5	1.5	1.4	1.4	1.4	1.4	1.4	1.1	1.7	1.4	1.8	1.5	1.4	1.4	1.2	1.3	1.2	1.1	1.3	1.2	1.1	1.3				
CCND1	CyclinD1	0.6	0.6	0.7	0.8	0.9	1.5	1.7	1.1	1.1	1.6	1.0	1.1	0.6	0.6	1.2	1.2	1.3	1.2	0.8	0.8	1.4	1.0	0.9	1.2	1.1	0.8	1.2	1.1	0.8	1.2	1.1	1.4	1.6	1.6	1.2			
DAB1	DAB1	2.0	1.9	2.0	0.7	0.8	1.3	1.2	0.4	0.3	1.1	1.1	0.4	0.4	0.2	0.2	0.4	0.3	0.4	1.4	0.9	2.7	2.2	0.7	0.8	1.5	0.3	0.6	0.5	1.2	0.4	0.4	0.3	0.3	0.4	0.2			
DAB2	DAB2	0.5	0.5	0.5	0.5	0.5	1.3	2.7	2.2	1.0	1.2	0.6	0.6	4.2	4.2	9.5	9.1	9.6	11.4	8.9	7.8	6.9	8.9	8.7	7.0	5.4	12.7	11.2	8.0	2.4	2.8	2.4	2.8	2.7	3.1	1.6			
DCX	DCX	1.3	1.3	1.3	0.8	0.9	1.3	1.3	0.9	1.2	1.3	1.3	1.3	1.3	2.2	2.2	2.6	2.6	1.7	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4			
DISC1	DISC1-LHLV	1.1	1.1	1.3	1.1	0.8	1.5	1.4	0.7	0.5	13.9	0.7	0.5	5.8	6.4	5.4	5.8	5.4	5.4	5.4	5.8	5.4	6.4	5.1	4.8	4.9	4.9	6.5	0.5	0.5	0.7	0.7	0.8	0.5	0.7	0.8	0.5		
DISC1	DISC1-Lv	1.4	1.3	1.0	1.1	0.8	1.4	1.2	1.0	0.9	0.9	0.6	0.7	0.6	4.1	4.1	4.4	3.9	3.3	3.1	3.2	2.5	4.0	3.6	3.0	2.8	3.7	3.6	2.9	3.1	3.2	4.6	0.7	0.7	0.7	0.4			
DISC1	DISC1-3v	0.7	0.8	0.7	0.6	0.9	2.0	2.1	0.4	0.4	1.1	1.4	1.4	3.2	2.7	3.3	2.0	2.2	1.7	1.7	3.0	2.8	1.5	1.4	2.8	2.4	2.2	2.3	3.2	1.4	1.4	1.2	1.6	1.9	0.9				
DISC1	DISC1-ewv1	1.1	1.2	0.5	0.7	1.2	1.0	1.2	0.9	1.5	1.6	0.9	0.7	1.1	0.4	1.3	3.0	1.9	2.1	2.7	3.1	2.8	4.0	2.3	2.4	2.1	1.7	2.1	2.1	5.0	1.5	1.3	1.8	0.7	0.9	1.4			
DISC1	DISC1-ew10	0.9	0.9	0.8	0.8	0.9	1.2	1.3	0.9	1.4	1.2	1.3	1.3	1.3	2.2	2.2	2.6	2.6	3.1	3.0	2.7	4.1	2.3	2.4	2.1	3.1	2.7	3.1	2.7	1.9	1.9	1.9	1.9	1.9	1.9				
DISC1	DISC1-1	0.5	0.3	0.5	1.2	1.5	1.2	1.5	1.3	0.3	0.3	0.8	0.8	0.9	5.1	4.4	4.0	3.5	3.2	5.0	4.8	4.7	7.3	5.8	1.5	3.5	2.9	2.4	3.2	2.0	1.1	1.3	1.1	0.5	0.8	2.4			
DISC1	DISC1-ew6	0.6	0.7	0.4	0.6	0.8	0.9	1.0	3.0	3.5	0.1	0.2	0.9	1.1	1.4	3.1	2.9	2.1	1.8	1.7	1.3																		