

**S5 Table. Functional enrichment and Predicted activation score.**

Diseases or Functions Annotation	P value	Predicted Activation	Activation z-score	Molecules	# Molecules
migration of cells	<b>1.45E-02</b>	Decreased	<b>-2.012</b>	BGN,COL4A1,DCLK1,FLNA,FN1,MRC2,NR2F1,NTRK2	<b>8</b>
quantity of neurons	1.56E-04		-1.78	DCLK1,FLNA,GAL,NR2F1,NTRK2	5
organization of cytoplasm	5.11E-04		-1.534	DCLK1,FLNA,FN1,GAL,KIFC3,NR2F1,NTRK2,PEX1,RAB33A	9
microtubule dynamics	5.14E-04		-1.533	DCLK1,FLNA,FN1,GAL,KIFC3,NR2F1,NTRK2,RAB33A	8
growth of neurites	7.22E-04		-0.655	DCLK1,FN1,GAL,NTRK2,RAB33A	5
mass of organism	3.12E-03		0	GAL,NMUR1,NTRK2,SOCS6	4
apoptosis of tumor cell lines	2.79E-02		0.834	COL4A1,FN1,GAL,KIFC3,NTRK2,VOPP1	6
apoptosis of neurons	5.05E-03		1.938	FN1,GAL,NR2F1,NTRK2	4
Bleeding	8.89E-03		1.98	BGN,COL4A1,FLNA,FN1	4
Edema	3.73E-03		1.982	FLNA,FN1,GAL,NTRK2	4
<b>apoptosis</b>	<b>1.82E-02</b>	<b>Increased</b>	<b>3.032</b>	<b>BGN,COL4A1,FLNA,FN1,GAL,KIFC3,NR2F1,NTRK2,TCF21,VOPP1</b>	<b>10</b>

Biological functions with significant z-scores above 2 or below -2 are marked.