

**S2 Table Functional annotation cluster of target genes of miRNA
with altered expression in response to carnosine treatment**

miRNA	Functional annotation cluster of target gene	miRNA	Functional annotation cluster of target gene
has-miR-24-3p	neurotrophin TRK receptor signaling pathway	has-miR-4281	neurotrophin signaling pathway
has-miR-26-5p	axon guidance	has-miR-4487	axon guidance
	postsynaptic density	has-miR-4507	neural tube development
	neuron differentiation		neurotrophin signaling pathway
	neuron projection development		regulation of neuron differentiation
	axon guidance		neurotrophin signaling pathway
has-miR-92b-5p	neurotrophin signaling pathway	has-miR-4532	axon guidance
	neuron differentiation		neuron differentiation
	neuron development		neuron development
	neuron projection morphogenesis		postsynaptic density
	axon guidance		axonogenesis
has-miR-103a-3p	neurotrophin signaling pathway	has-miR-4668-5p	neural tube foration
	neuron development		astrocyte development
	neuron projection		regulation of neurogenesis
	axonogenesis		regulation of neuron differentiation
has-miR-194-5p	axon cargo transport	has-miR-4674	neurotrophin signaling pathway
	neurogenesis	has-miR-4741	axon guidance
	axon guidance		neurotrophin signaling pathway
	neural tube development	has-miR-6769b-5p	neural tube development
	neuron projection		axon guidance
has-miR-320b	neuron projection		regulation of nervous system development
	neurotrophin signaling pathway		regulation of neuron differentiation
	neuron projection morphogenesis		neurotrophin signaling pathway
	axon guidance	has-miR-6732-5p	neuron projection
has-miR-937-5p	axonogenesis		primary neural tube formation
	neuron projection morphogenesis		neuron differentiation
	neuron development		neuron projection morphogenesis
has-miR-1207-5p	neural tube development		neurotransmitter transport
	neurotrophin signaling pathway		axon guidance
has-miR-1227-5p	regulation of neuron projection development		neurotrophin signaling pathway
	regulation of axonogenesis	has-miR-6771-5p	axonogenesis
	regulation of nervous system development	has-miR-6775-5p	neuron differentiation
	neurotrophin signaling pathway		neuron projection morphogenesis
has-miR-1343-5p	neurotrophin signaling pathway		axonogenesis
has-miR-3141	central nervous system neuron differention		regulation of neurotransmitter levels
	regulation of axonogenesis	has-miR-6794-5p	axon guidance
	Alzheimer's disease		neurotrophin signaling pathway
has-miR-3162-5p	postsynaptic density	has-miR-6798-5p	axon guidance
	neuron projection development	has-miR-6821-5p	regulation of neuron differentiation
	neuron differentiation		regulation of nervous system development
	neuron projection morphogenesis		neurotransmitter transport
	axonogenesis		neuron apoptosis
	synaptic transmission	has-miR-8075	primary neural tube formation
	neurotrophin signaling pathway		