

<i>Cacna1c</i> putative regulator miRNAs	conserved sites across vertebrates
miR-103/107	1
miR-129/129-5p	1
miR-137	1
miR-140/140-5p/876-3p	1
miR-153	1
miR-181a*	1
miR-19	1
miR-200bc/429	1
miR-25/32/92/92ab/363/367	1
miR-26ab/1297	1
miR-28*	1
miR-290	1
miR-30a/30a-5p/30b/30b-5p/30cde/384-5p	1
miR-326	1
miR-33/33ab	1
miR-351	1
miR-770	1
miR-883	1
miR-96/1271	1

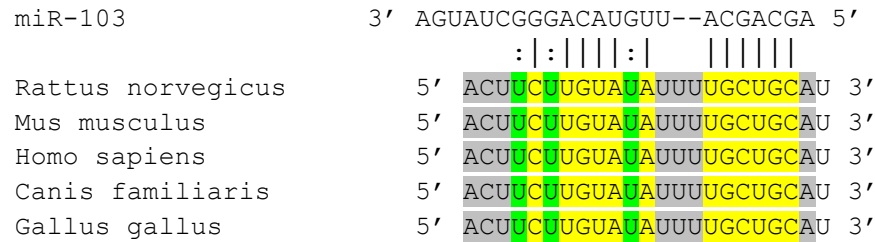
<i>Cacna2d1</i> putative regulator miRNAs	conserved sites across vertebrates
miR-101a*	1
miR-103/107	1
miR-130a	1
miR-130b	1
miR-148b-3p	1
miR-150	1
miR-152	1
miR-194	1
miR-203	1
miR-291a-5p	1
miR-301a	1
miR-301b	1
miR-376c	1
miR-382	1
miR-466c	1
miR-499	1
miR-505	1
miR-532-3p	1
miR-540	1
miR-883	1

<i>Cacnb1</i> putative regulator miRNAs	conserved sites across vertebrates
miR-103/107	2
miR-125/351	1
miR-129/129-5p	1
miR-15/16/195/424/497	1
miR-214/761	1
miR-34a/34b-5p/34c/34c-5p/449/449abc/699	1
miR-96/1271	2
rno-miR-92b	1

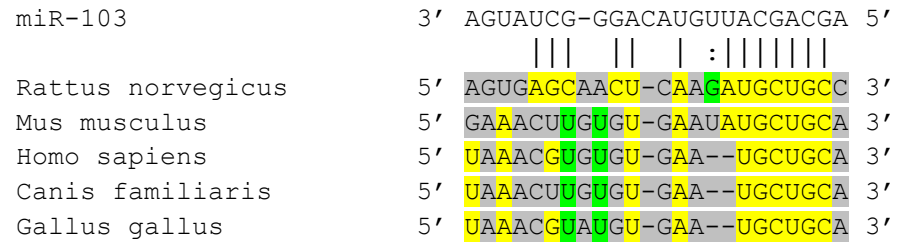
Supplementary Table 1: **MiRNAs that are putative regulators of Cav1.2-LTC**

List of the miRNA target sites for the different Cav1.2-LTC subunits as determined by miRanda and TargetScan algorithms. Only sites that are well conserved across vertebrates are listed.

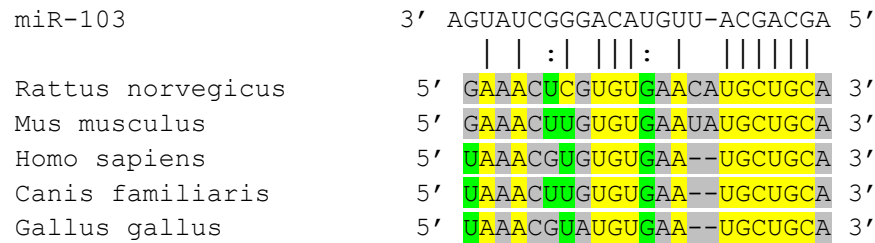
Cacna1c 3'UTR (1512-1534)



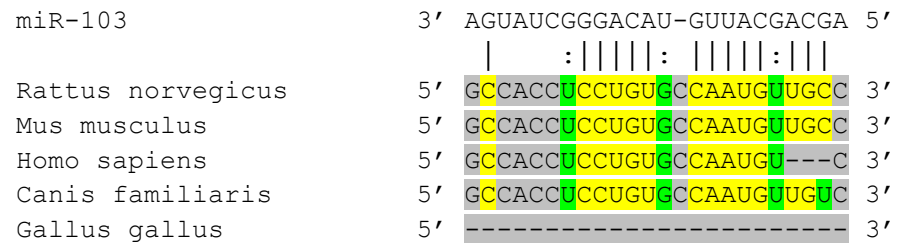
Cacnb1 3'UTR (636-658)



Cacna2d1 3'UTR (182-204)



Cacnb1 3'UTR (1198-1220)



Supplementary Figure 1: **MiR-103 target sites in *Cacna1c*, *Cacna2d1* and *Cacnb1* are well conserved in phylogeny.**

Target sites were determined with the miRanda algorithm(John et al., 2004) available online (<http://www.microrna.org/>) and the TargetScan algorithm (release 5.1) available online (http://www.targetscan.org/vert_50/). *Cacna1c* exhibited one target site for miR-103 at nucleotide positions 1512-1534, *Cacna2d1* one site at positions 182-204 and *Cacnb1* two sites at positions 636-658 and 1198-1220. Yellow indicates perfect base pairing, green indicates wobble base pairing and gray indicates no match. Phylogenetic study revealed that these target sites were well conserved across vertebrates.

<i>Cacna1a</i> putative regulator miRNAs	conserved sites across vertebrates
miR-128	1
miR-129/129-5p	1
miR-143	1
miR-27ab	1

<i>Cacna1b</i> putative regulator miRNAs	conserved sites across vertebrates
miR-125a-5p	1
miR-125b-5p	1
miR-132	1
miR-133a	1
miR-133b	1
miR-134	1
miR-138	1
miR-199a-5p	1
miR-212	1
miR-224	1
miR-24	1
miR-329	1
miR-351	1
miR-377	1
miR-381	1
miR-758	1
miR-873	1

<i>Cacna1d</i> putative regulator miRNAs	conserved sites across vertebrates
miR-135	1
let-7/98	1
miR-190	1

<i>Cacna1e</i> putative regulator miRNAs	conserved sites across vertebrates
let-7/98	1
miR-133a	1
miR-133b	1
miR-135	1
miR-15/16/195/424/497	1
miR-183	1
miR-183	1
miR-193	1
miR-24	1
miR-339-5p	1
miR-34a/34b-5p/34c/34c-5p/449/449abc/699	1
miR-431	1
miR-9	1

<i>Cacna1f</i> putative regulator miRNAs	conserved sites across vertebrates
no site	no site

<i>Cacna1g</i> putative regulator miRNAs	conserved sites across vertebrates
miR-137	1

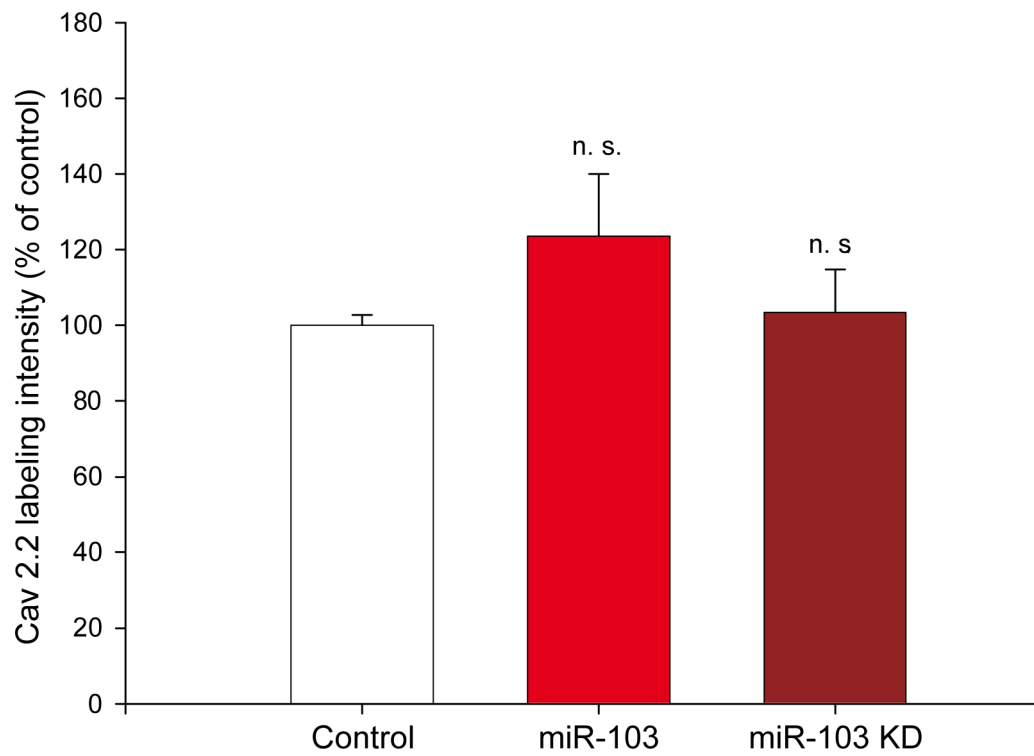
<i>Cacna1h</i> putative regulator miRNAs	conserved sites across vertebrates
miR-137	1
miR-25/32/92/92ab/363/367	1
miR-32	1
miR-328	1
miR-339-5p	1

<i>Cacna1i</i> putative regulator miRNAs	conserved sites across vertebrates
let-7/98	1
miR-137	2
miR-214/761	1
miR-218	1
miR-25/32/92/92ab/363/367	1

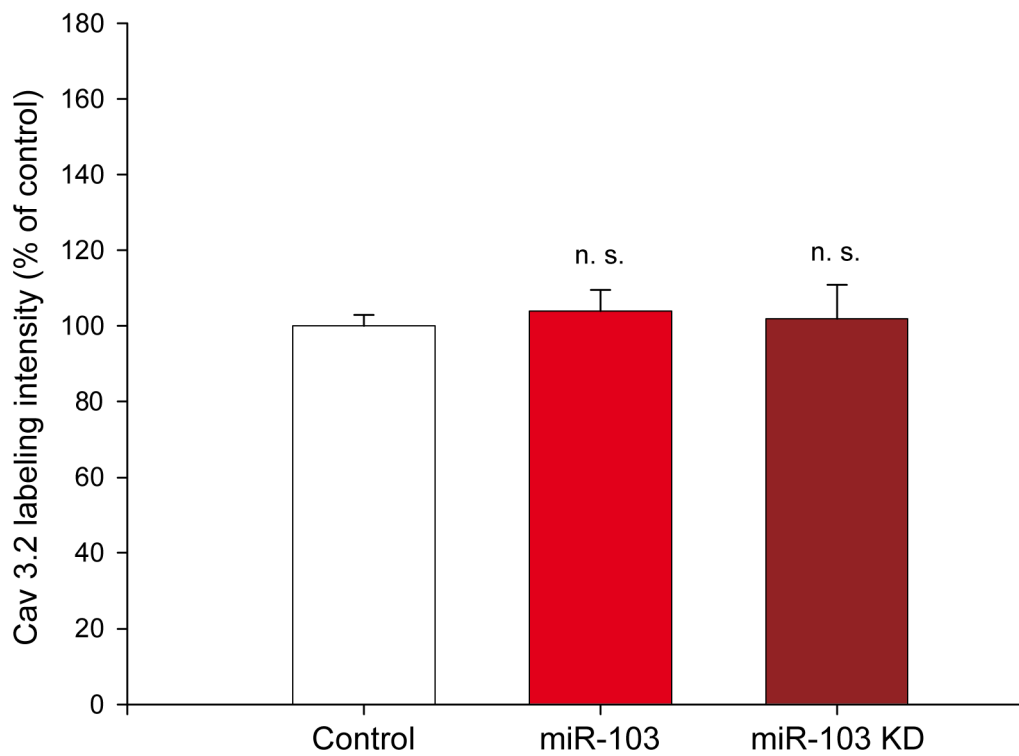
<i>Cacna1s</i> putative regulator miRNAs	conserved sites across vertebrates
miR-138	1
miR-199a-5p	1
miR-199b-5p	1
miR-328	1

Supplementary Table 2: MiRNAs putative regulators of all the different voltage gated calcium channels.

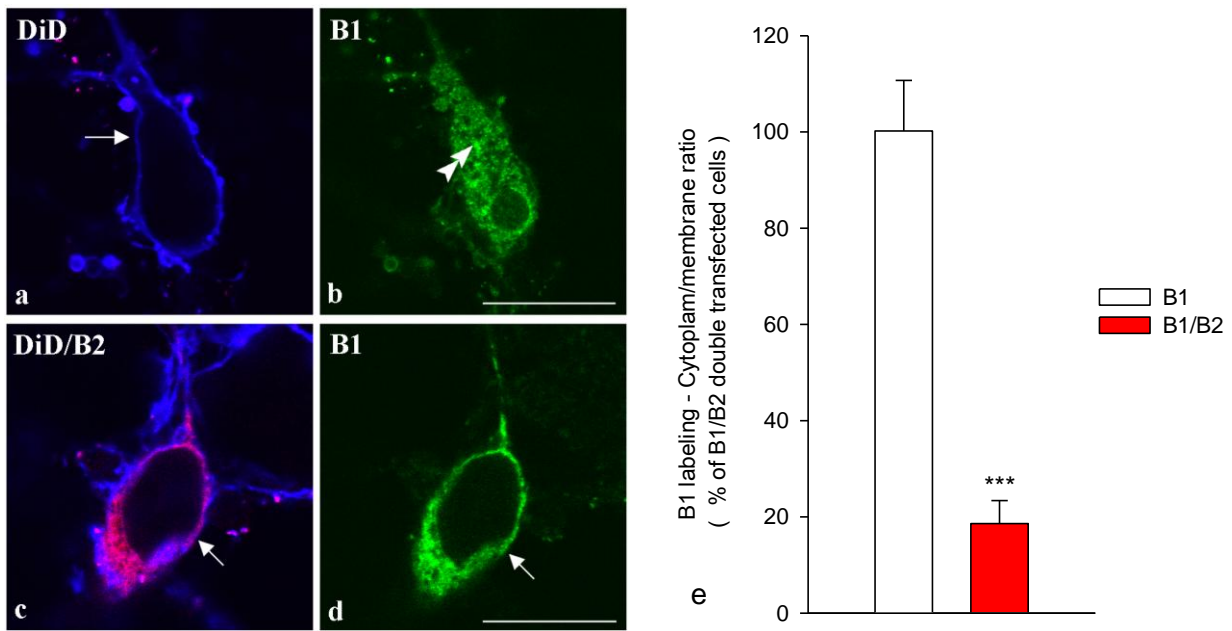
List of the miRNA target sites for the different voltage gated calcium channels as determined by miRanda and TargetScan algorithms. Only sites that are well conserved across vertebrates are listed



Supplementary Figure 2: miR-103 over-expression or knock-down in spinal cord neuron culture had no effect on Cav2.2 labeling intensity.



Supplementary Figure 3: miR-103 over-expression or knock-down in spinal cord neuron culture had no effect on Cav3.2 labeling intensity.



Supplementary Figure 4:

Traffic assay positive control: GABAB1 and GABAB2 are two subunits of the heterodimeric GABAB Receptor which is trafficked to the membrane only when the two subunits are associated. DiD staining is used to depict the neuron membrane (a). When GABAB1 subunit is expressed alone its localization is mainly cytoplasmic (b), while co-expression of GABAB1 and GABAB2 induced membrane expression of GABAB Receptor (c, d). Quantification of GABAB1 membrane versus cytoplasmic expression clearly confirms GABAB1 trafficking toward the plasma membrane when associated with B2 subunit (n=7 cells in each condition, e).