Landes Bioscience

www.landesbioscience.com

# Supplemental Material to:

Oscar Hernández-Hernández, Géraldine Sicot, Diana M. Dinca, Aline Huguet, Annie Nicole, Luc Buée, Arnold Munnich, Nicolas Sergeant, Geneviève Gourdon, and Mário Gomes-Pereira

## Synaptic protein dysregulation in myotonic dystrophy type 1: Disease neuropathogenesis beyond missplicing

Rare Diseases 2013; 1(3)
http://dx.doi.org/10.4161/rdis.25553

http://www.landesbioscience.com/journals/rarediseases/article/25553/

# Synaptic protein dysregulation in myotonic dystrophy type 1: disease neuropathogenesis beyond missplicing

Oscar Hernández-Hernández[1,2], Géraldine Sicot[1,3], Diana M. Dinca[1,3], Aline Huguet[1,3], Annie Nicole[1,3], Luc Buée[4], Arnold Munnich[1,3], Nicolas Sergeant[4], Geneviève Gourdon[1,3] and Mário Gomes-Pereira[1,3,*]

[1] Inserm U781, Hôpital Necker Enfants Malades, 75015 Paris, France.

[2] Laboratorio de Medicina Genómica, Departamento de Genética, Instituto Nacional de Rehabilitación, Calzada México Xochimilco 289, C.P. 14389, México D.F., México.

[3] Université Paris Descartes – Sorbonne Paris Cité, Institut *Imagine*, Paris, France.

[4] Inserm U837-1, Alzheimer and Tauopathies, Université Lille Nord de France, Centre Jean Pierre Aubert, 59045 Lille, France

## SUPPLEMENTARY INFORMATION

**Supplementary Table 1.** Oligonucleotide primer sequences.

**Supplementary Table 2.** Primary antibodies used for protein immunodetection in western blot analysis (WB)

**Supplementary Table 1.** Oligonucleotide primer sequences.

| Gene | Exon | Forward primer | Reverse primer | PCR product size (bp) |
|---|---|---|---|---|
| **Mouse transcripts** | | | | |
| *Grin1/ Nmdar1* | 5 | AGCGTCGTCCTCGCTTGCAGAA | GACAAGAGCATCCACCTGAGCT | 360 (+5)<br>297 (-5) |
| *Grin1/ Nmdar1* | 21 | GCAGCTGGCCCTCCTCCCTCTC | ATGCCCCTGCCACCCTCACTTTT | 381 (+21)<br>270 (-21) |
| *Mapt/ Tau* | 10 | CTGAAGCACCAGCCAGGAGG | TGGTCTGTCTTGGCTTTGGC | 367 (+10)<br>274 (-10) |
| *Mbnl1* | 7 | TGGTGGGAGAAATGCTGTATGC | GCTGCCCAATACCAGGTCAAC | 270 (+7)<br>216 (-7) |
| *Mbnl2* | 7 | CTTTGGTAAGGGATGAAGAGCAC | ACCGTAACCGTTTGTATGGATTAC | 255 (+7)<br>201 (-7) |
| *Rab3A* | 2 | CCAGCGTTGTCTCAGCTTAGAGAG | CGGTAATAGGCTGTGGTGATGG | 303 (+2)<br>75 (-2) |
| *Rab3A* | 2 (5') | ATCCCCCGCATCCTCTTCTG | GGTGCTGACAAAGGCTGGAGTG | 270<br>245 |
| *Syn1* | 13 (5') | AAACCCAGCCAGGATGTGC | GGATGTCAGTCGGAGAAGAGG | 209<br>171 |
| **Human transcripts** | | | | |
| *GRIN1/ NMDAR1* | 21 | CGTGTGGCGGAAGAACCTG | CTGTCTGCGGGGGAGGGG | 292 (+21)<br>181 (-21) |
| *MBNL1* | 7 | GCTGCCCAATACCAGGTCAAC | TGGTGGGAGAAATGCTGTATGC | 216 (+7)<br>162 (-7) |
| *MBNL2* | 7 | ACAAGTGACAACACCGTAACCG | TTTGGTAAAGGATGAAGAGCACC | 212 (+7)<br>158 (-7) |
| *RAB3A* | 2 | CCACCGCCAAAAAAGTCAC | ATGAGGATGAAGCCCATAGC | 358 (+2)<br>130 (-2) |
| *SYN1* | 13 (5') | CCACCCACCACGCAGCAG | GCTTTCACCTCGTCCTGGCTAAG | 224<br>186 |

**Supplementary Table 2.** Primary antibodies used for protein immunodetection in western blot analysis (WB)

| Antigen | Supplier Reference # | PAGE (%) | Species origin | Incubation conditions | Ab dilution |
|---|---|---|---|---|---|
| Actin | BD laboratories 612656 | 10-12 | Mouse | 5% blotto, 1h, RT | 1:5000 |
| CELF1 | Upstate, 05-621 | 10 | Mouse | 5% blotto, 1h, RT | 1:1000 |
| CELF2 | Sigma, C9367 | 10 | Mouse | 2h, RT | 1:1000 |
| hnRNP H | Santa Cruz sc10042 | 10 | Goat | 5% blotto, O/N, 4°C | 1:500 |
| MBNL1 | G. Morris, MB1a (gift) | 10 | Mouse | 5% blotto, 1 h, RT | 1:1000 |
| MBNL2 | G. Morris, MB2a (gift) | 10 | Mouse | 5% blotto, 1 h, RT | 1:1000 |
| RAB3A | Abcam, ab3335 | 12 | Rabbit | 10% blotto, 1h, RT | 1:1000 |
| ß-Tubulin | Sigma, T4026 | 10-12 | Mouse | 5% blotto, 1 h, RT | 1:2000 |
| Synapsin I | Abcam, ab8 | 10 | Rabbit | 5% blotto, O/N, 4°C | 1:10000 |
| Synapsin I Ser553 | Epitomics, 1532-1 | 10 | Rabbit | 5% blotto, O/N, 4°C | 1:5000 |
| Synapsin I Ser9 | Epitomics, 2228-1 | 10 | Rabbit | 5% blotto, O/N, 4°C | 1:5000 |