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ZZ domain of dystrophin and utrophin: topology and mapping of a beta-dystroglycan interaction site.

Karim Hnia, Dora Zouiten, Sonia Cantel, Delphine Chazalette, Gérald Hugon, Jean-Alain Fehrentz, Ahmed Masmoudi, Ann Diment, Janice Bramham, Dominique Mornet, et al.

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⁶ECPIIGF ¹⁹YRSLKHF ³¹YDICQSC
⁴KECPIIG ¹⁸RYRSLKH ²⁹NYDICQS
²CKECP II ¹⁷FRYRSLK ²⁷FNYDICQ
¹ICKECPI ¹⁶GFRYRSL ²⁵HFNYDIC
NICKECP ¹⁴IGFRYRS ²³KHFNYDI
CNICKEC ¹²IIGFRYR ²²LKHFNYD
KCNICKE ¹⁰PIIGFRY ²¹SLKHFNY ³⁵ICQSCFF
AKCNICK ⁸CPIIGFR ²⁰RSLKHFN ³³DICQSCF
Dys 3311...**AKCNICKECPIIGFRYRSLKHFNYDICQSCFF**...3342
|||||:|||||:|||||
Utr 3068...**AKCNICKECPIVGFYRSLKHFNYDVCQSCFF**...3099
³CKECP IV ²⁴KHFNYDV
⁵KECP IVG ²⁶HFNYDVC
⁷ECPIVGF ²⁸FNYDVCQ
⁹CPIVGF R ³⁰NYDVCQS
¹¹PIVGF RY ³²YDVCQSC
¹³IVGF RYR ³⁴DVCQSCF
¹⁵VGF RYRS ³⁶VCQSCFF

Figure 1 Hnia et al

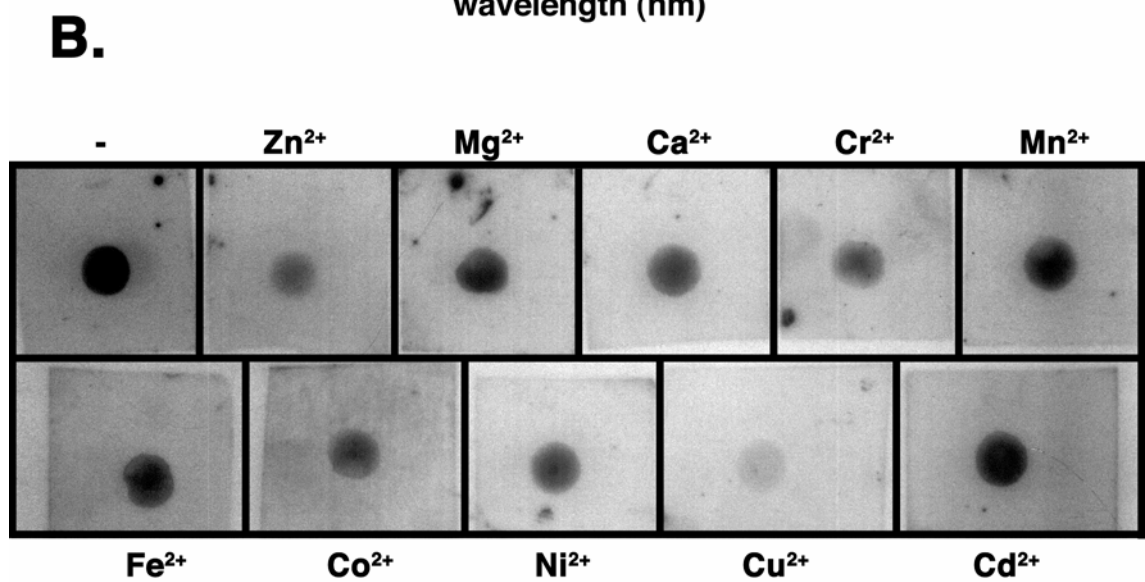
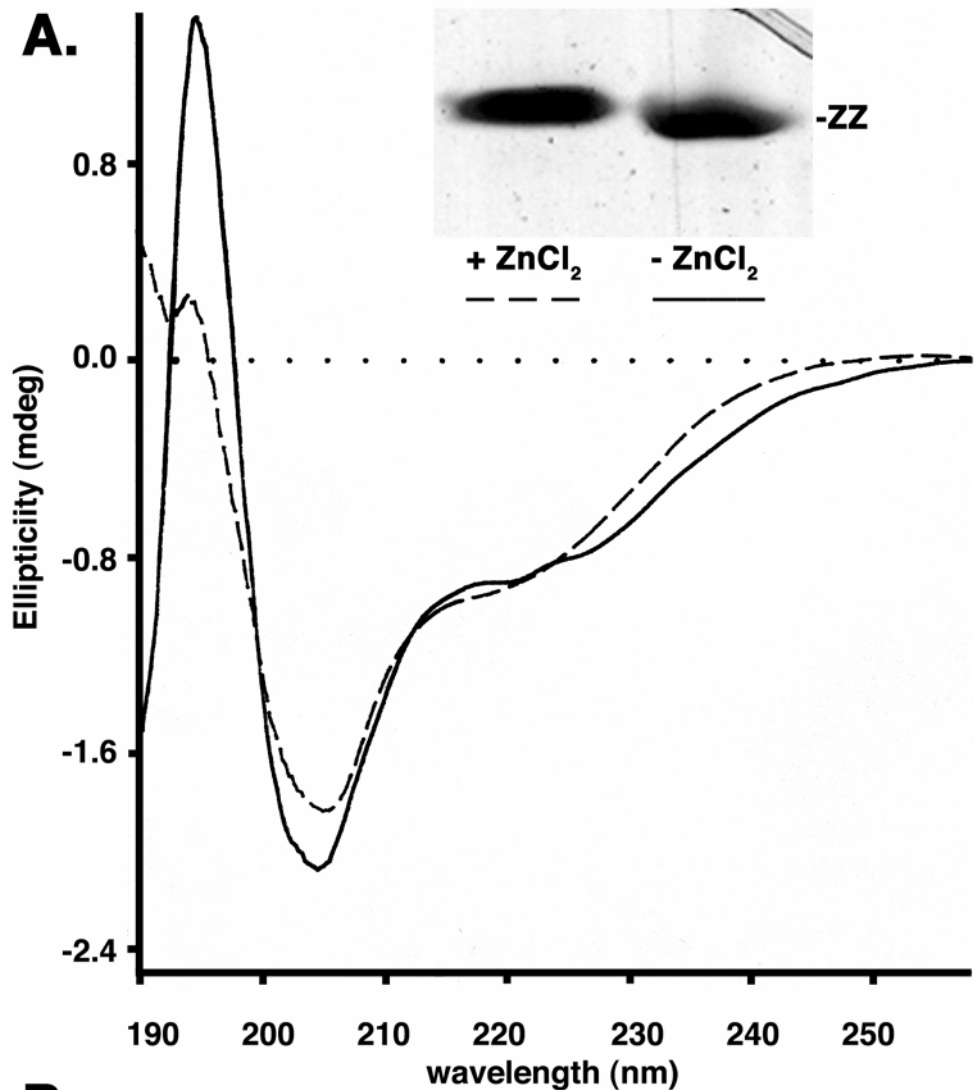


Figure 2 Hnia et al

C

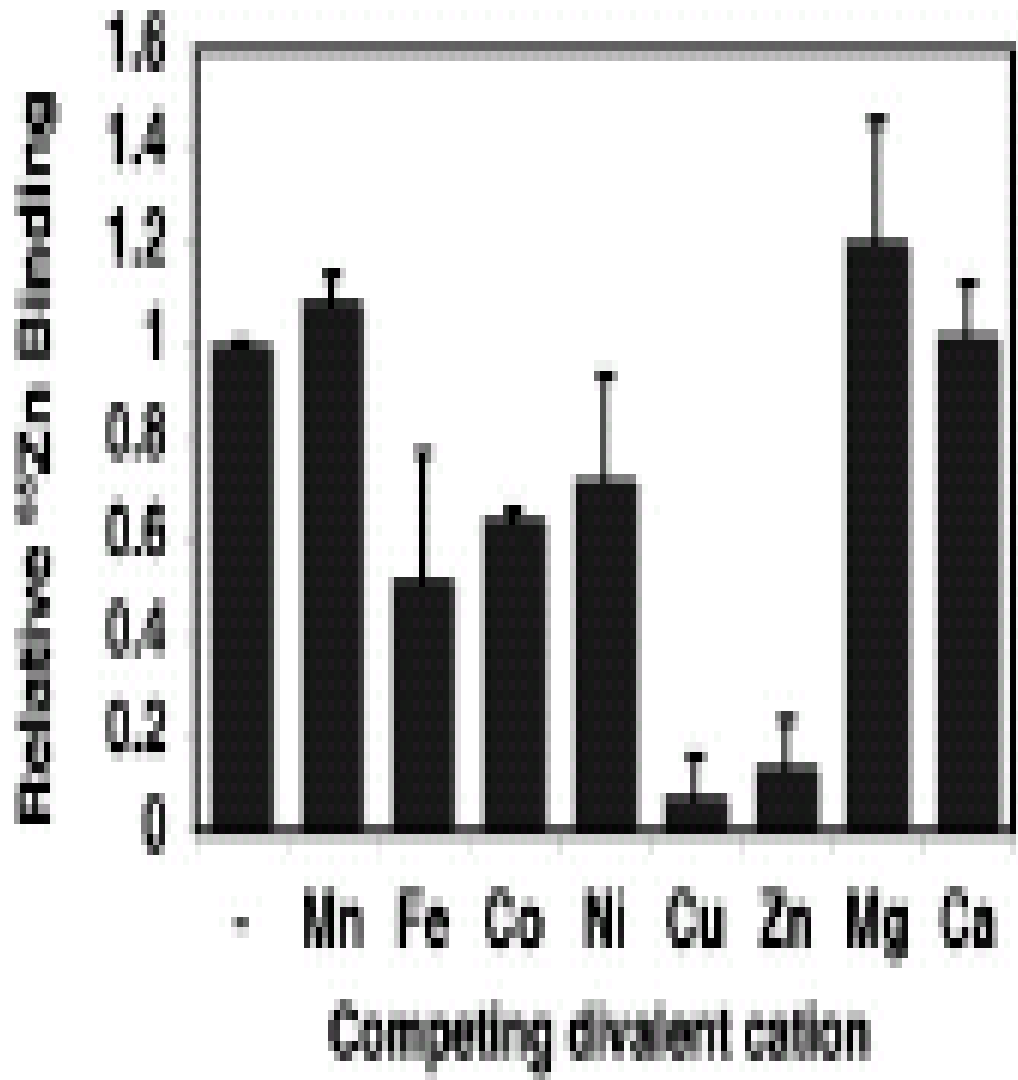
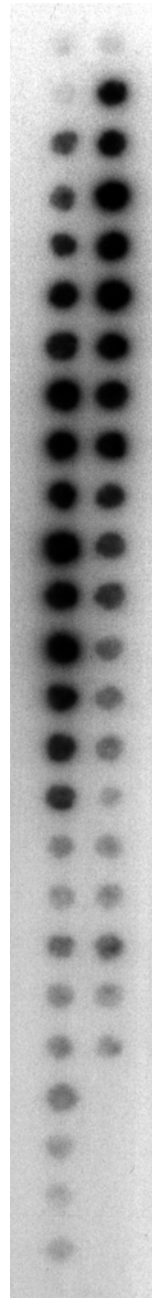


Figure 2 Hnia et al

A.

1. MVWLPVLHRVAAAETAKHQQA
2. VWLPVLHRVAAAETAKHQAK
3. WLPVLHRVAAAETAKHQAKC
4. LPVLHRVAAAETAKHQAKCN
5. PVLHRVAAAETAKHQAKCNI
6. VLHRVAAAETAKHQAKCNIC
7. LHRVAAAETAKHQAKCNICK
8. HRVAAAETAKHQAKCNICKE
9. RVAAAETAKHQAKCNICKEC
10. VAAAETAKHQAKCNICKECP
11. AAAETAKHQAKCNICKECPI
12. AAETAKHQAKCNICKECPIV
13. AETAKHQAKCNICKECPIVG
14. ETAKHQAKCNICKECPIVGF
15. TAKHQAKCNICKECPIVGFR
16. AKHQAKCNICKECPIVGFRY
17. KHQAKCNICKECPIVGFRYR
18. HQAKCNICKECPIVGFRYRS
19. QAKCNICKECPIVGFRYRSL
20. AKCNICKECPIVGFRYRSLK
21. KCNICKECPIVGFRYRSLKH
22. CNICKECPIVGFRYRSLKHF
23. NICKECPIVGFRYRSLKHFN
24. ICKECPIVGFRYRSLKHFNY
25. CKECPIVGFRYRSLKHFNYD



26. KECPIVGFYRSLKHFNYDV
27. ECPIVGFYRSLKHFNYDVC
28. CPIVGFYRSLKHFNYDVCQ
29. PIVGFYRSLKHFNYDVCQS
30. IVGFYRSLKHFNYDVCQSC
31. VGFYRSLKHFNYDVCQSCF
32. GFRYRSLKHFNYDVCQSCFF
33. FRYRSLKHFNYDVCQSCFFS
34. RYRSLKHFNYDVCQSCFFSG
35. YRSLKHFNYDVCQSCFFSGR
36. RSLKHFNYDVCQSCFFSGRT
37. SLKHFNYDVCQSCFFSGRTA
38. LKHFNYDVCQSCFFSGRTAK
39. KHFNYDVCQSCFFSGRTAKG
40. HFNYDVCQSCFFSGRTAKGH
41. FNYDVCQSCFFSGRTAKGHK
42. NYDVCQSCFFSGRTAKGHKL
43. YDVCQSCFFSGRTAKGHKLH
44. DVCQSCFFSGRTAKGHKLHY
45. VCQSCFFSGRTAKGHKLHYPM
46. CQSCFFSGRTAKGHKLHYPM
- 47.
- 48.
- 49.
- 50.

B.



Figure 3 Hnia et al

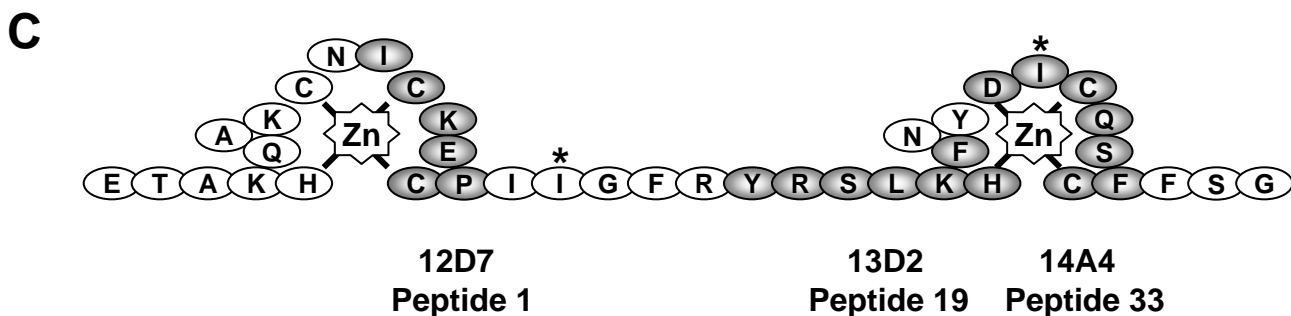
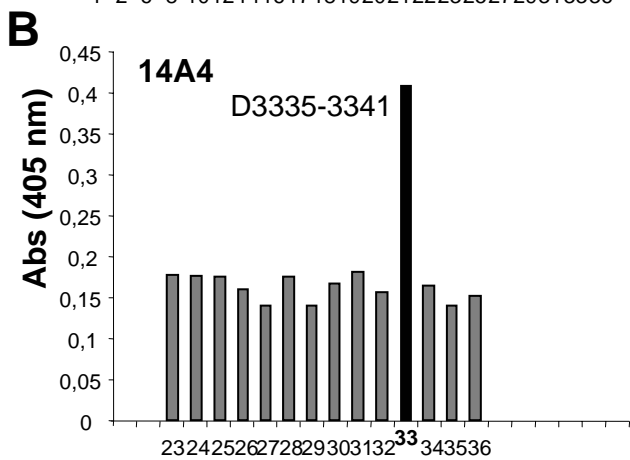
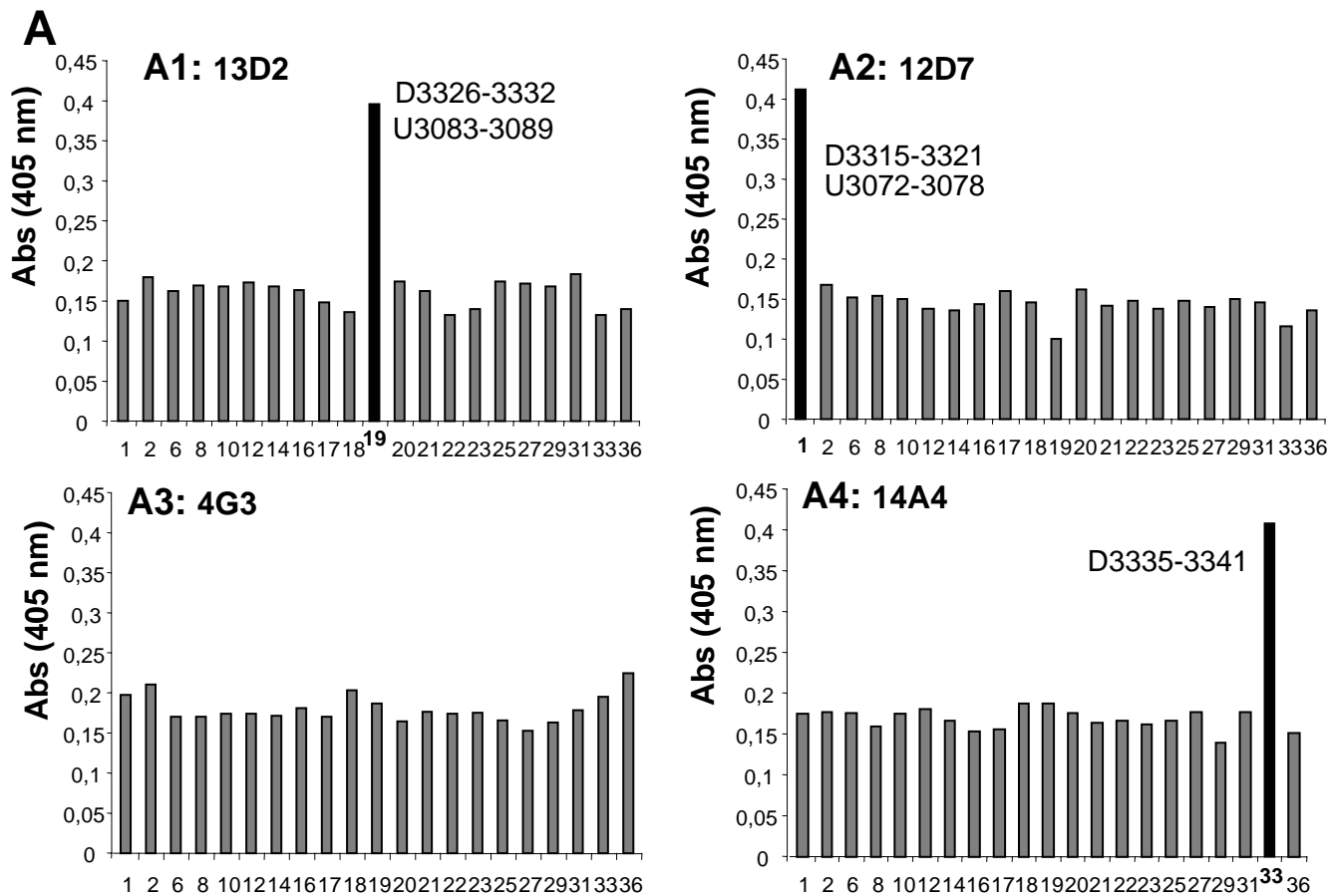


Figure 4

Hnia et al

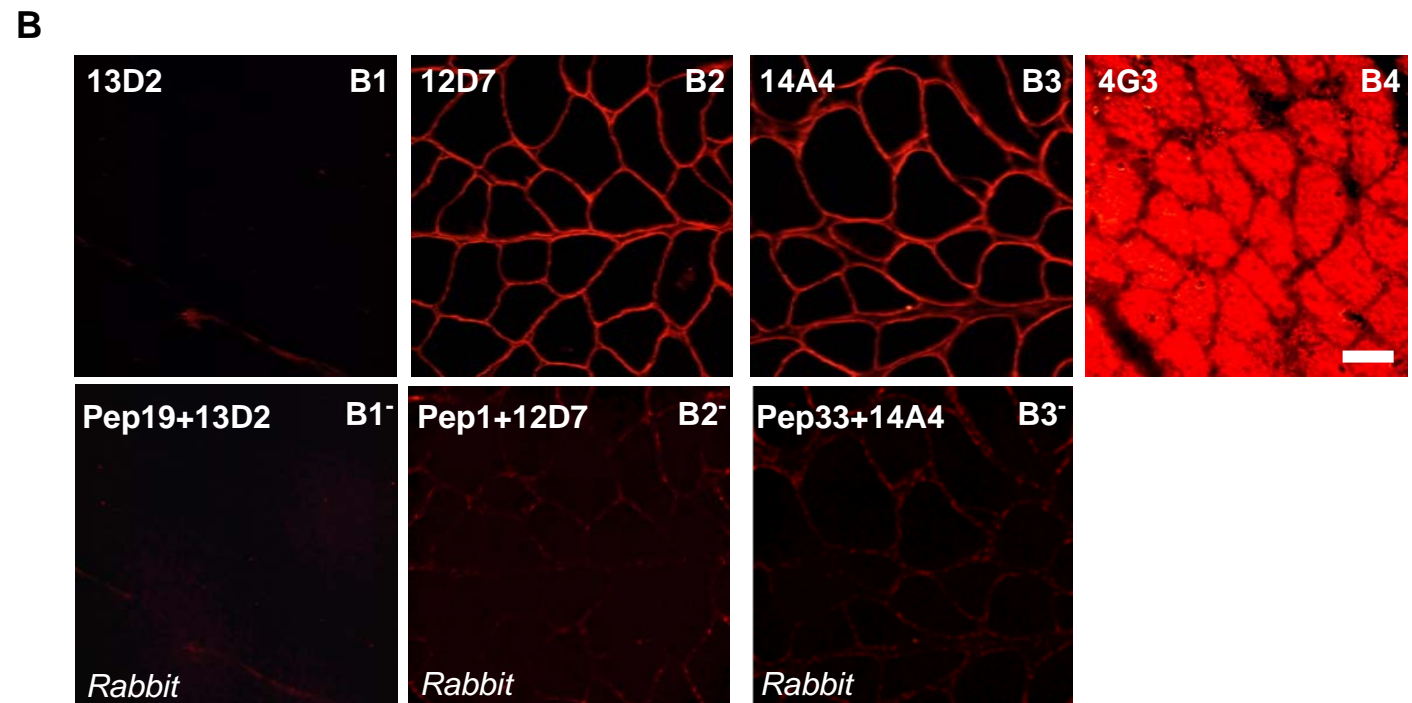
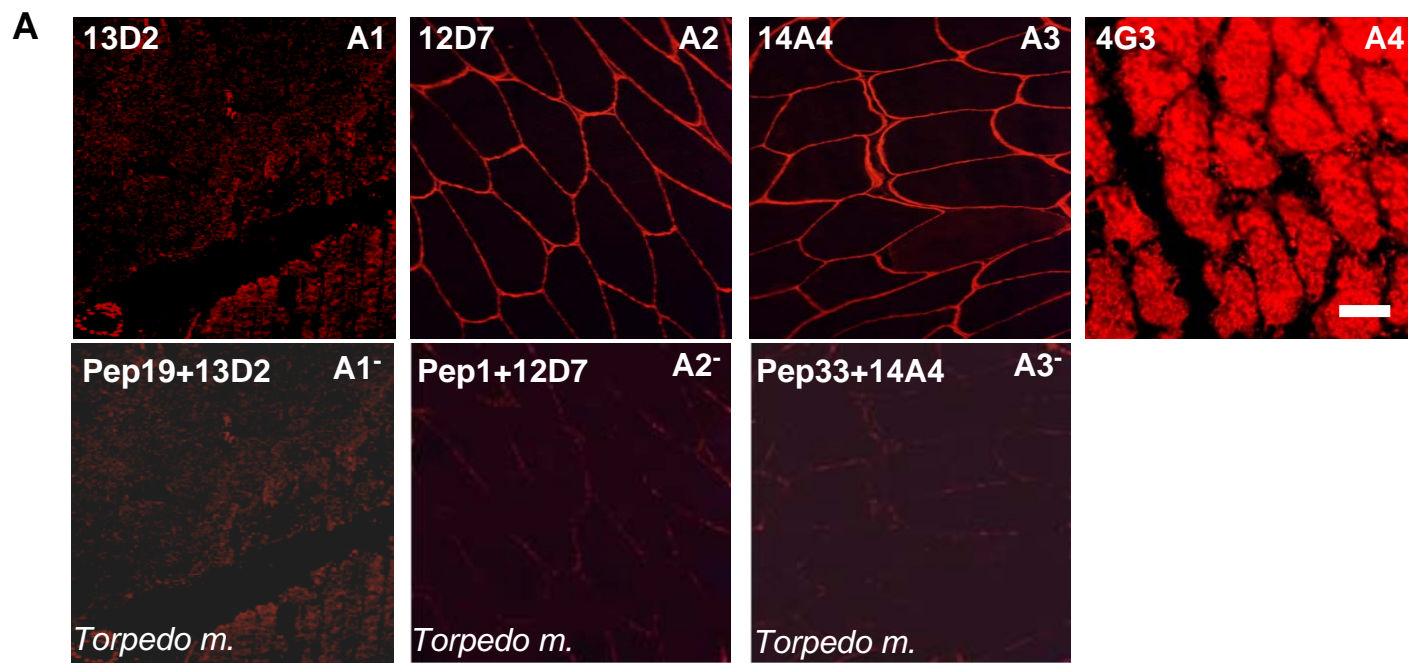
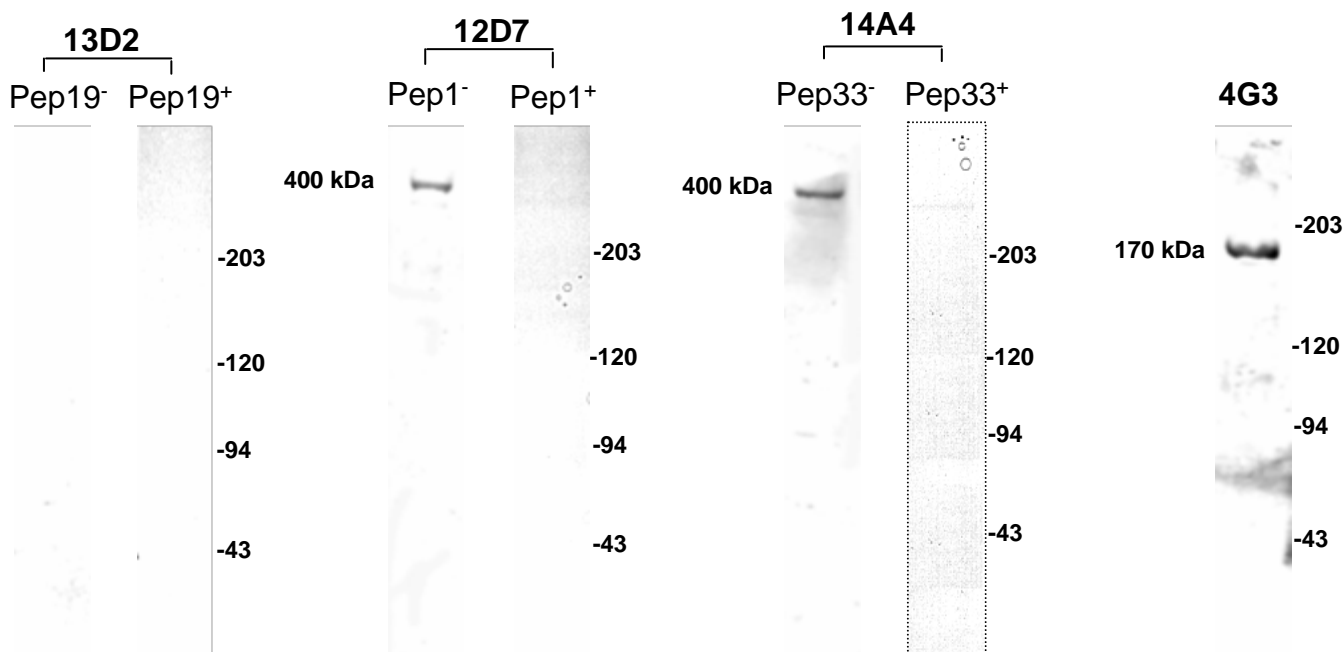
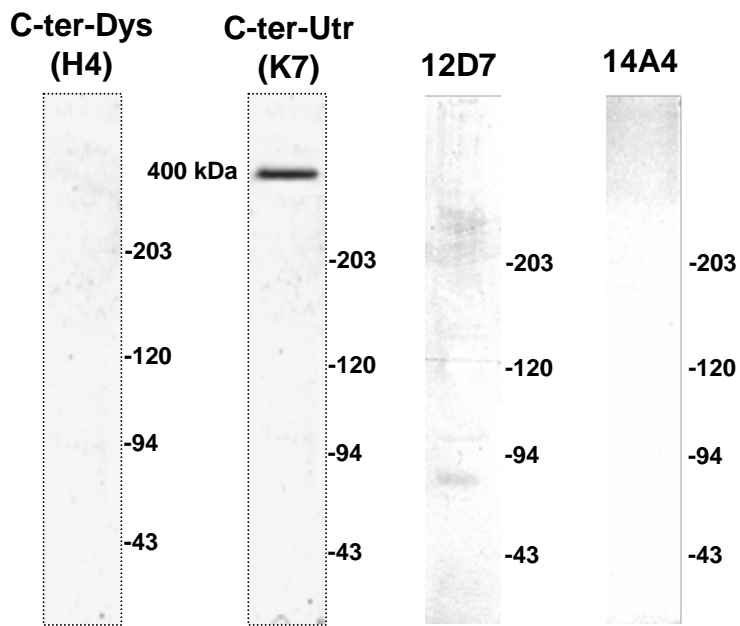


Figure 5AB Hnia et al

C

Rabbit skeletal muscle

D*mdx* mouse skeletal muscle

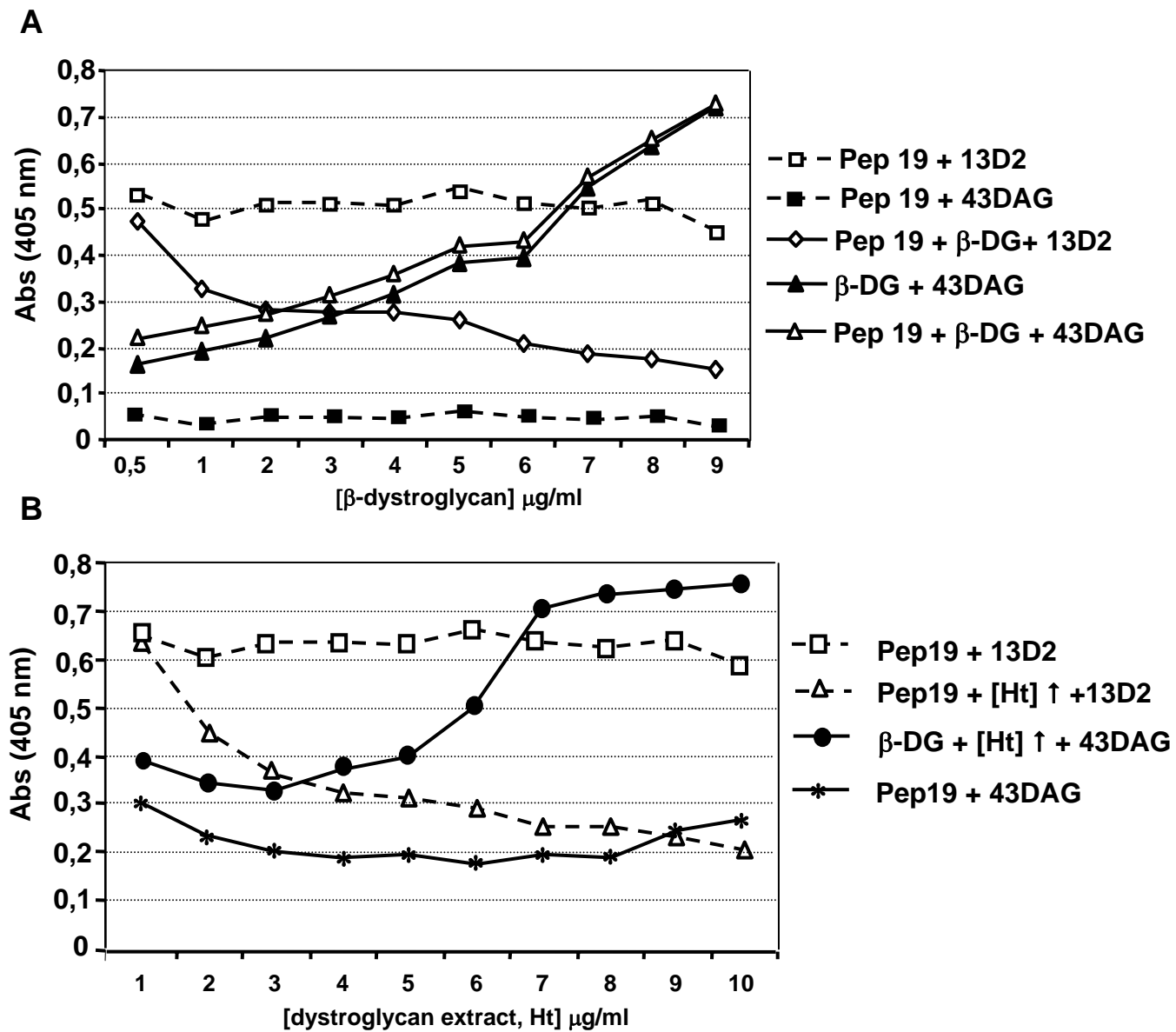
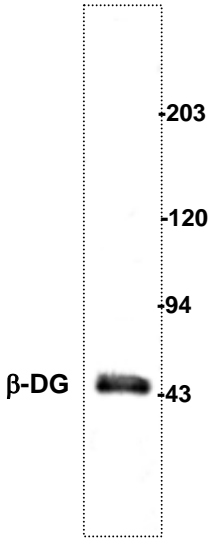


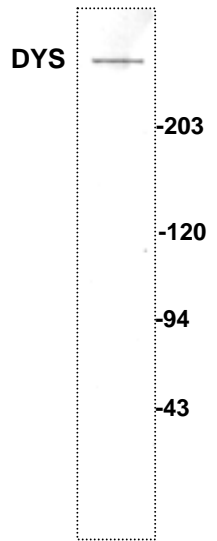
Figure 6 Hnia et al

A

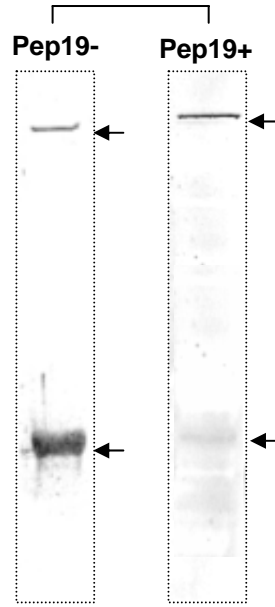
A1) C-ter- β -DG



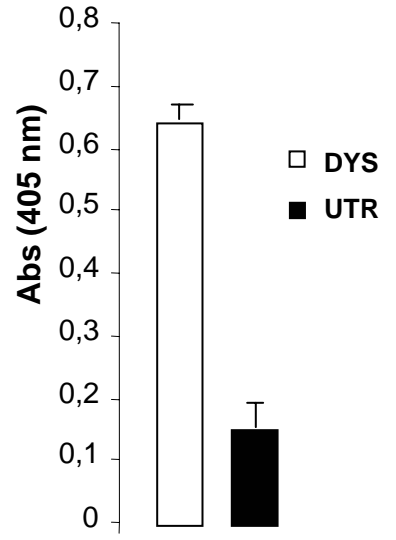
A2) C-ter-DYS



A3) O/L DYS

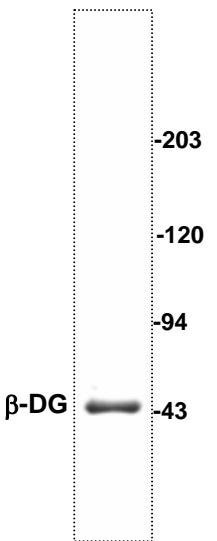


A4) O/L fraction DYS/UTR

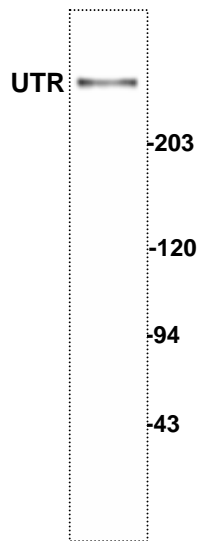


B

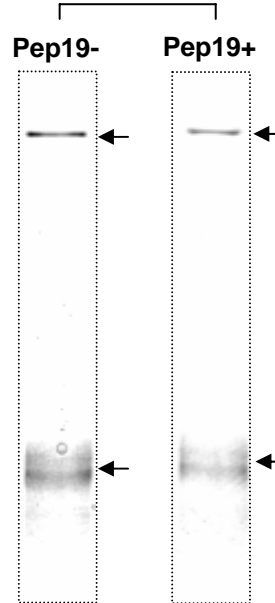
B1) C-ter- β -DG



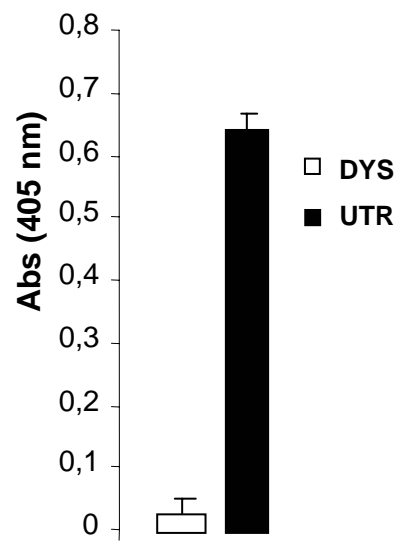
B2) C-ter-UTR



B3) O/L UTR



B4) O/L fraction UTR/DYS



A

```

UTRO_HUMAN/3064-3109 AKHQAKCNICKECPIVGPRYRSLKHF---NYDVCQSCFFSGRTARGHKL
DMD_HUMAN/3307-3354 AKHQAKCNICKECPIIGPRYRSLKHF---NYDICQSCFFSGRVARGHKL
DTND_HUMAN/237-282  VFHPVECSYCRCESMMGFRYRCQQCH---NYQLCQNCFMRGHAGGPHSN
CBP_human/1701-1744 DRFVYTCNECKHH--VETRNECTVCE---DYDLCINCINT--KSHAKM
MIB_DROME/173-218  KHEGTMCDTCRQQPIFGIRMECAEC---INYLCSICYHGDKHHLRHF
REF2P_DROME/121-165 IHDAVECDCCGLAPLIGFRYKCVQCS---NYDLCQRCELA-HKHPELHM
YOY6_CAEEL/8-52    THEGVSCDGCAPTAFAGHYKCLRCS---DYDLCFSCFTT-KNYGDOQT
CBP1_CAEEL/1493-1532 KGM EYTCNECSS----PAVHNCQSCD---DFDLCDGCKPT--TQHPHEM
ADA2_YEAST/1-46    MSNKFHCDVCSADCTNRVRYVSCAICP---EYDLCVPCFSQ--GSYTGKH
RSC8_YEAST/254-298 IHKVYICHTCGN-ESINVRYHNLRAR---DTNLCSRCFQE--GHFGANF
SMCL_ARATH/304-350 PAVEYHCNSCSAD-CERKRYHCPEQA---DFDLCTECFNS--GKFSDDM
PRT1_ARATH/2005-255 VHPGAGCDSCGVYPIIGDHYRCKDCKEEIGYDLCKDCYE-TPSKVPGRF
SMART Consensus/60% sppspsCesC.p..bsGhRa+ChbC. DaDLCpsCbep...bphpH.

```

B

```

UTRO_HUMAN/3064-3109 AKHQAKCNICKECPIVGPRYRSLKHF---NYDVCQSCFFSGRTARGHKL
DYS/UTR In binding      1  1  1  1                2      2  2  2

CBP_human/1701-1744 DRFVYTCNECKHH--VETRNECTVCE---DYDLCINCINT--KSHAKM
CBP In binding          1  1                2  2      1  1      2  2

```

Figure 8 Hnia et al