

Additional file 6: Exemplar repeats used in motif coding analyses.

Each exemplar represents a repeat taken from the complete sequence (e.g., *N.c.* MaSp1a), minor variants of these repeats are tandem iterated throughout the complete sequence.

1) *N.c.* MaSp1a

GGAGQGGYGGLGSQGAGRGAGAAAAAA

2) *N.c.* MaSp1b

GGAGQGGGLGGQGAGQGAGAAAAAA

3) *N.c.* MaSp2

GPGQQGPGGYGPGQQGPGGYGPGQQGPSGPGSAAAAAAAAA

4) *L.h.* MaSp1

GGAGQGGQGGYGQGGYGQGGAGQGGAGAAAAAAA

5) *L.h.* MaSp2

GGAGPGRQQAYGPGGSGAAAAAAA

6) *L.g.* MaSp1

GGAGQGGYLQRGSGQGAAAAAAA

7) *N.i.* MaSp2

GRGPGGYGPGQQGPGGPGAAAAAA

8) *A.t.* MaSp2

GPGYGPGAGQQGPGSQGPGSGGQQGPGGQGPYGPSAAAAAAAAA

9) *E.a.* MaSp1

GQGGYGGQGGYGQGGAGGAAAAAAAAAAAAAAAAA

10) *D.c.* MaSp

QQQQQQQAAAAAAAAAAGSGQGASFGVTQQFGAPSGAASSAAAAAAAAAAGSG
AGQEAGTGAGAAAAAAAAAGAAGSGAGQGAGSGAGAAAAAAAAAASAAGAGQGAGSGSGAG
AAAAAAAAAAAA

11) *D.c.* MaSp-like

LFLSSGDFGRGGAGAGAGAAAASAAAASSAAAGARGGSGFGVGTGGFGRGGAGDGASAA
AASAAAASAAAAGAGGD

12) *D.s.* MaSp2

GPGGYGGQGTGQGGQGGPGQGRQGPSAAAAAAAAAASAA

13) *K.h.* MaSp1

GAGFGSGAGAGSGAGAGYGAGRAGGRGRGGRGGEAFSASSASSAVVFESAGPGEEAGSS
GGGASAAAASAAAAGAGSGRRGPGGARSRGGAGAGAGAGSGVGGYGSAGAGAGAGAGA

GAGGEGGFGEQGYGAGAGAGFGSGAGAGAGAGSGAGAGEGVGSGAGAGGAGFGVGAGA
GAGA

14) *A.ap.* MaSp

NYGYGPGVGAGSGAGAGSGSGVGAGSGFGAGAGSGTGLGRGAGTGAGAGSGAGSGAGAG
SGSGAGAGSGSGAGAGRGAGLGGFGSGLGAGAGTGAGAGSGSGAGSGAGAGAGSGFGAG
AGRGAGSGGTGSWLRSGVGTGSSASAGSAGSGAGVGSAGPGPAYGYAAYYAA

15) *L.h.* TuSp1

SSSTSTTTTTSQAASQAASQSASSSSSAASQSAFSQASSSALASSSSSFSSAFSSASSAS
AVGQVGYQIGLNAAQTLGISNAPALADAVSQAVRTVGVGASPFQYANAVSNAFGQLLGG
QGILTQENAAGLASSVSSAIISSAASSVAAQAASAAQSSAFAQSQAAAQAFSQAASRSAS
QSAAQAG

16) *A.a.* TuSp1

SSSTTTTTTSTSGSQAASQSASSSSASQASASSFAQASSASLAASSSFSSAFSSANTLSAL
GNVAYQLGFNVANTLGLGNTAGLGAALSQAVSSVGVGASSATYANAVSNAVQFLAGQG
ILNGANAASLASSFASALSASAASVASSSAAQSATQSQAAASAFSRAASQSASQSAARS
GAQ

17) *A.ap.* TuSp1

SGAQAASQAASQTSSSSWAAASASTFSQSSASSLASSSAFSSAFSSASSASAVGSLCYQ
LALQTANSLGIQNAASLASAVSQAVSAVGVRASSYAYASAIISNTVGQFLISQGLLSQSN
ASALASSFASAFASAAASASASASSSSYAQSSAAAQSQSAASAFSRAASAAASQASSQS
ASQAGSYGRTTTTSTSE

18) *N.ct.* TuSp1

SSSTTTTTTSAAASQAASQSASSSSSSAFAQAASSSLATSSAISRAFASVSSASAASSLA
YTIGLSAARSLGIASDTALAGALAQAVAGVGAGASASTYANVIARAAGQFLATQGVLD
GNASALAGSFARALSASAESQSFAQSQAFAQQAASQSAAGQSASRAGST

19) *A.b.* TuSp1

SSSTTTTTTSTSGSQAASQSASSAAAQASASSFAQASSASLAASSAFSSAFSSANSLSAL
GNVGYQIGFNANTLGIIGNAPGLGNALSQAVSSVGVGASSSAYANAVSNAVQFLAGQG
VLNAGNAGSSLASTFANALSASAASVASSAAAQSAFQSQAASAFSRAASQSTSQSAAR
SGAQ

20) *B.c.* fibroin 1

SSSSTSTSTTTTSSAAAAASSARSSSAAAAASAAAFSSLSRALIYRLQONQDFIYTFNSI
ETSDAARAITYSSALAAANAMGAGSSASQAVAFAAAKAAEGVPIRSSSYAYAEAITNAI
TPHFLALHLVNSANVDAFASDFTSSSFASATASAASASAAASSAASAAAAATA

21) *L.h.* MiSp

GAGGYGQGAGGYGRGQGASAGAGAGAGAGGYGQGAGAGAAAGAAASAGAGGYGQGAGGY
GRGTGAGAGGYGQGTGAGAAAGAGASAGARGYGQRAGGYGQGQAGAGAAAGAAAGAGRYG
QSGGSASVSTGGYGQSQVARASSSSAVGTSSSVSTS

22) *M.g.* MiSp

GYGAGAGRGYGAGAGAGAGAVAASGAGAGAGYGAGAGAGAGAGYGAGAGRGYGAGAGAG
AGSGAASGAGAGAGYGAGAGAGAGYGAGAGSGYGTGAGAGAGAGAAAAGGAGAGAGYGAGA
GRGYGAGAGAGAASGAGAGAGAGAASGAGAGSGYGAGAAAAGGAGAGAGGGYGAGAGRG
YGAGAGAGAGAGSGSGSAAGYGQ

23) *U.d. MiSp*

GAGYGTGAGTGASAGAAAASGAGAGYGGQAGYGQGAGASARAAGSGYGAGAGAAAAAGSG
YGAGAGAGAGSGYGAGAAAAGSGYGAGAGAGAGSGYGAGAGAGSGYGAGAGAGAGSGYVA
GAGAGAGAGSGYGAGAGAGAGSSYSAGAGAGAGSGYGAGSSASAGSAVSTQTVSSSAT
SSQSAAAAT

24) *A.v. Flag*

GAPGGGPGGAGPGGAGVPGGAPGAPGGPGGPGGPGGAYGPGAGGPSGPGGAGPGGVGP
YGPGGVGPGGVGPGGAGVPGGAPGAPGGPGGPGGPGGPGGVGGPLGAGAGGVPGGAG
AYGPGGAGAYGPGGVGLGAGAYGPGGAGPGGAGPHGPGGPGGAGPGGEGPVTVDVEVS
VG

25) *N.c. Flag*

GAGGSGPGGAGPGGVGPGGSGPGGVGPGGSGPGGVGPGGSGPGGVGPGGAGGPYPGGS
GPGGAGGAGPGGAYGPGGSYGPGGSGPGGAGGPYPGGEPPGGAGGPYPGGAGGPY
GPGGAGGPYPGGEPPYPGPGGSYGPGGAGGPYPGGPYGPGGEGPGGAGGPYPGGVG
PGGSGPGGYGPGGSGPGGYGPGGAGPGGYGPGGSGPGGYGPGGSGPGGYGPGGSGPGGY
GPGGSGPGGYGSGGAGPGGYGPGGSGPGGYGPGGSGPGGYGPGGTGPGGTGPGGSGPGG
YGPGGSGPGGSGPGGSGPGGYGPSGSGPGGYGPSGSGPGGYGPGGSGPGGYGPGGSGAG
GTGPGGAGGAGGAGGSGGAGGSGGAGGSGGAGGSGGVGGSGGTTITEDLDITIDGADGP
ITISEELTIS

26) *N.i. Flag*

GGAGAGGVPGGSGPGGVGPGGSGPGGVGPGGSGPGGVGSGGSGPGGVGPGGSGPGGVG
SGGFPGGIGPGGSGPGGVGPGGVGGPYGPGGSGPGGAGGAGGSYGPGGPYGPGGSGGP
GGAGGPYPGGAGGPYPGGPYGPGGAGGPGGEGPGGAGGPYPGGPGGAGPGGYGPGG
AGPGGYGPGGAGPGGYGPGGAGSGGYGPGGAGPGGYGPGGPYPGGYGPGGAGPGGYGPG
GTGPGGSAPGGAGPGGAGPGGYGPGGSGPGGYGPGGGPGGAGPGGAGPGGAGPGGAGPG
GAGPGGAGPGGAGPGGAGPGGAGPGGVGTGGLRGGAGRGGAGRGGAGRGGAGR
GGAGRGGTGGVGGAGGAGGAGGVGGAGGSGGTTVIEDLDITIDGADGPITISEELTI