

SD 5. WebLogo expression of the conserved sequence patterns in spider silks

Dooyup Jung, Yun Jung Yang, and Hyung Joon Cha
Pohang University of Science and Technology

>gi|47007923|gb|AAT08433.1| major ampullate spidroin 1, partial [Kukulcania hibernalis]

GSSGDGASAAASAAAAAGAGSGRRGPGGARSRGGAGAGAGA**GSGVGG**YGS GSGAGAGAGA**GAGAGG**EGGF
 GEGQGYGAGAGAGYGAGRAG**GRGRGG**RGGEAFSASSASSAVVFESAGAGAGAGFGVGAGAGAGAGAGFGS
 GAGAGSGAGAGYGAGRAG**GRGRGG**RGGEAFSASSASSAVVFESAGPGEEAGSSGDGASAAASAAAAAGAG
 SGRRGPGGARSRGGAGAGAGA**GSGVGG**YGS GSGAGAGAGA**GAGAGG**EGGFGEQGYGAGAGAGFGSGAGA
 GAGAGSGAGAGEGVGSGAGAGAGAGFGVGAGAGAGAGAGFGSGAGAGSGAGAGYGAGRAG**GRGRGG**RGGE
 AFSASSASSAVVFESAGPGEEAGSSGGGASAAASAAAAAGAGSGRRGPGGARSRGGAGAGAGA**GSGVGG**Y
 GSGSGAGAGAGA**GAGAGG**EGGFGEQGYGAGAGAGFGSGAGAGAGAGSGAGAGEGVGSGAGAGAGAGFGV
 GAGAGAGAGAGFGSGAGAGSGAGAGYGAGRAG**GRGRGG**RGGEAFSASSASSAVVFESAGPGEEAGSSGGG
 ASAAASAAAAAGAGSGRRGPGGARSRGGAGAGAGA**GSGVGG**YGS GSGAGAGAGA**GAGAGG**EGGFGEQGY
 GAGAGAGAGAGAGFGSGAGAGAGAGSGAGAGEGVGSGAGAGAGAGFGVGAGAGAGAGAGFGSGAGAGSGA
 GAGYGAGRAG**GRGRGG**RGGEAFSASSASSAVVFESAGPGEEAGSSGDGASAAASAAASAG

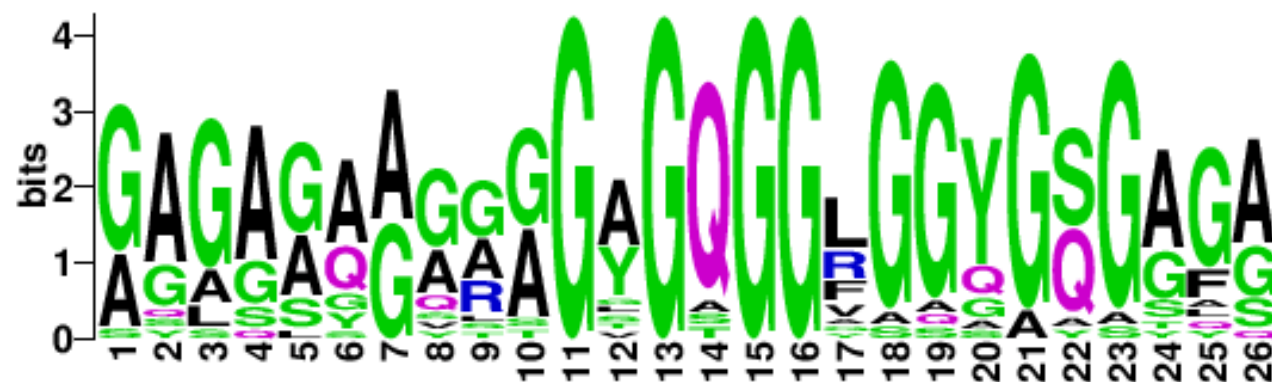
The **weblogo** created from 20 neighbouring amino acids of this motif is shown below



>gi|294440291|gb|ADE74592.1| major ampullate spidroin 1, partial [Peucetia viridans]

QGGFGGQGSAGAGAAAAAGAGAGQGGRGGYGQGGFGGQGSAGAGASAAAGAGAGQGGRGGYGQGGFGG
QGSAGAGASAAAGAGAGQGGRGGYGQGGFGGQGSAGAGASAAAAAGAGQGGRGGYGQGGLGSGSGAG
AGAGAAAAAAGAGGYGQGGLGGYGQAGAGQGGGLGGYSGAGAGASAAAAAGAGAGQGGGLGGYGQAG
AGQGGGLGGYSGAGAGAAAAAAGAGGSGQGGGLGGYSGGGAGGASAAAAAGTGQGGVGGYGQAGSSAGA
GTGGVGQGGYGSYSSYQSTSGISIALSTQSLGGQGQYQGLGAGASAGAGAAVGTGLGQGGGLGGYGQGS
GSASAAASGSGSAIGGFGGYGQAGLGAGTAADV GATVSNTVSRLLSPAATSRVSSAVSSLVANGAPNLS
SLPNVISSLSNSVSASTPGASGCEILVQVLMEVV TALVQILSSANVSSVNAGDPSQAAMTVGQSVAAALG

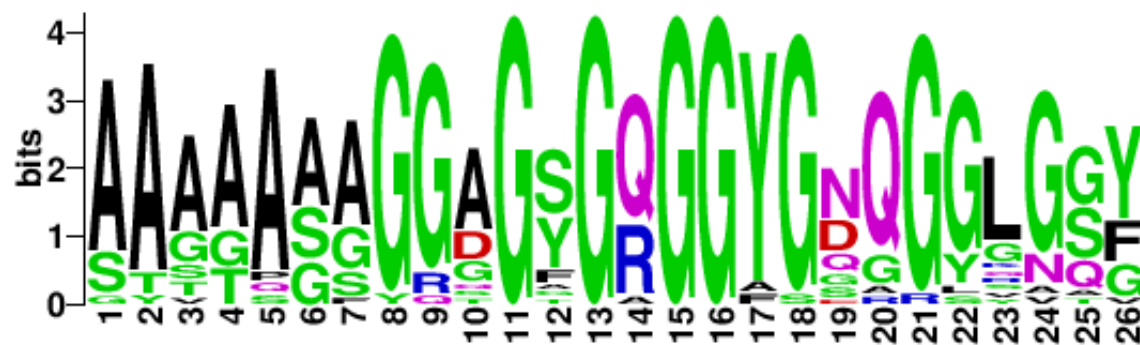
The **weblogo** created from 20 neighbouring amino acids of this motif is shown below



>gi|13561990|gb|AAK30598.1|AF350269_1 fibroin 1, partial [Dolomedes tenebrosus]

GSQGRYGGQGSSGGYGQAGAGAATAATARADGSGQGRYDQSSQGGYGQAGAGATATAAAGGAGSGQ
GGYGGQGGLGGYGQAGAGAAAAATAAGGAGSGQGDYGDQGGLGGYGQSGAGSATAPAAGGSFGQGGFG
NRGKGAYGQSAGAGVGAAATAAAGGAGSGQGGYGDQGGLGGYGQAGAGAASAAAGGGDGYEQGGYGNQ
GGLGSFGQAGAGAAAAASAGGAGSGRGGYGDQGGLGGYGQAGAGAASAAAGGGDGYGQYYGDQGGRG
GYGQSGAGSATAAAAGGAGFGQGGYGQGGYGNQGGLSFGQAGAGAAAAASAGGAGSGRGGYGDQGGL
GGYGQAGAGAAAAAGGGDGYGQGGYGNQGGLSFGQAGAGAAAAASAGGAGSGRGGYGGYGNQGG
LGSFGQAGAGAAAAASAGGAGSGRGGYGDQGGLGGYGQAGSGAAAAAGGGDGYGQGGYGNQGGLSF
GQAGAGAAAAASAGGAGSGRGGYGGYGNQGGLSFGQAGAGAAAAASAGGAGSGRGGYGDQGGLGG
YQAGAGAGAASAAAGGGDGYGQGGYGNQRGVGSYQAGAGAAATSAAGGAGSGRGGYGEQGGGGYGQ
AGAGAASTAAGGGDGYGQGGYGNQGGSGSYQSGAGAGAAVAAAAGGAVSGQGGYDGEQGGYGGSG
AGAAVAAASGGTGAQGGYGSQGSQAGYQAGFRAAAATAAAGAGGAGGGQGGYGGQGGYGGGTGAGGA
SSAGLSVTVGNMVSRLLSSPEAASRVSSAVSSLVSNQVNVNDALPSIISNLSSSISASATTASDCEVLVQV
LLEVVSALVQIVCS

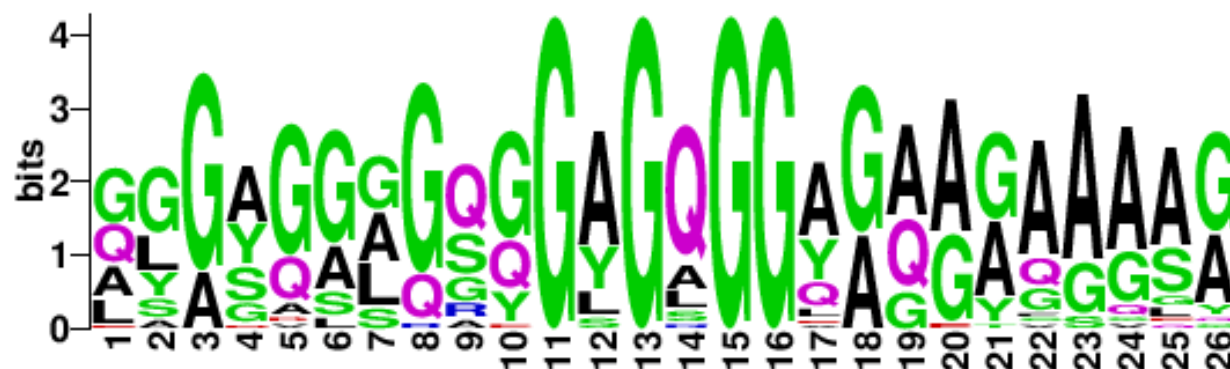
The [weblogo](#) created from 20 neighbouring amino acids of this motif is shown below



>gi|13561984|gb|AAK30595.1|AF350266_1 major ampullate spidroin 1, partial [Argiope trifasciata]

AAAAAAAAAGGQGGQGGYDGLGSQGAGQGGYQGGAAAAAAAAASGAGSAQRGGLGAGGAGQGYGAGSGGQ
GGAGQGGAAAATAAAAGGQGGQGGYGGGLGSQSGSQGGYQGGAAAAAAAAASGDGGAGQEGLGAGGAGQGY
GAGLGGQGGAGQGGAAAAAAAAAGGQGGQGGYGGGLGSQGAGQGGYQGGAAAAAAAAASGAGGAGQGG LGA
AGAGQGYGAGSGGQGGAGQGGAAAAAAAAAGGQGGQGGYGGGLGSQGAGQGGYQGGVAAAAAAAAASGAGGA
GRGGLGAGGAGQGYGAVSGGQGGAGQGG EAAAAAAAAAGGQGGQGGYGGGLGSQGAGQGGYQGGAAAAAAAA
ASGAGGARRGGLGAGGAGQGYGAGLGGQGGAGQGSASAAAAAAAAAGGQGGQGGYGGGLGSQSGSQGGYQGG
AAAAAAAAASGAGGAGRGS LGAGGAGQGYGAGLGGQGGAGQGGAAAAASAAAGGQGGQGGYGGGLGSQGAGQ
GGYQGGAAAAAAAAASAGGQGGQGGYGGGLGSQGAGQGGYGGGA FSGQGGGAASVATASAAASRLSSPGAASR
VSSAVTSLVSSGGPTNSAALSNTISNVVSQISSSNPGLSGCDVLVQALLEIVSALVHILGSANIGQVNSS
GVGRSASIVGQSINQAFS

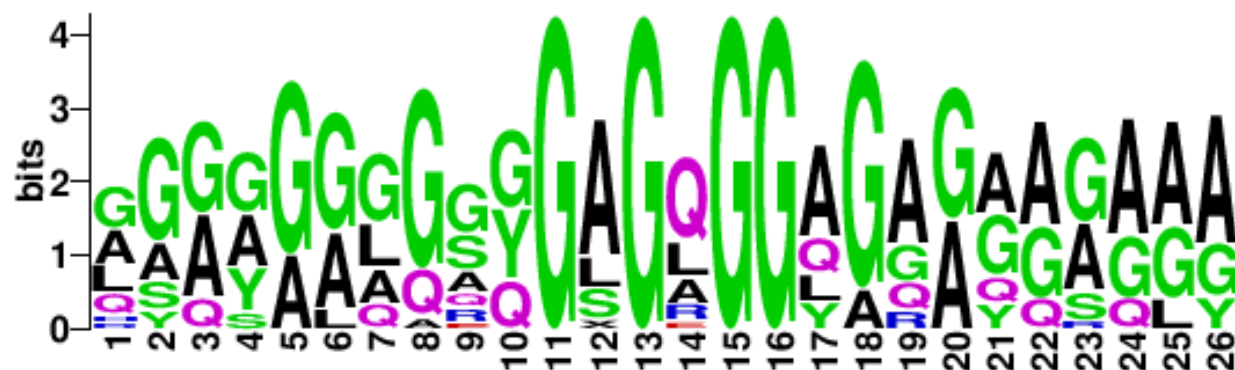
The [weblogo](#) created from 20 neighbouring amino acids of this motif is shown below



>gi|13561976|gb|AAK30591.1|AF350262_1 major ampullate spidroin 1, partial [Argiope aurantia]

AGQGGAGAAAAAAGGAGGAGRGGLGAGGAGQGYGSLGGQGGAGGGAAAAAAGGQGGQGGYGGLG
SQGAGQGGYGAGQGGAGAAAAAAGGAGGAGRGGLGAGGAGQGYGSLGGQGGAGQGGAAAAAAGGQ
GGQGGYGGGLGSQGAGQGGAGRGAAAAAAGGQGGRGYGGGLGSQGAGQGGYGAGQGGAGAAAAAAGG
AGEGGLGAGGAGQGYGSLGGQGGAGQGGAAAAAAGGQGGHGGYGGGLGSQGAGQGGAGRGAAAAA
GGQGGQGGYGGGLGSQGAGQGGYGAGQGGAAAAAAGGAGGAGRGELGAGGAGQGYGXGLGGQGGAGQ
RGAAVAALAGGQGGQGGFGGFSSQGAGQGAYGGGAYSGQGAASVSAASAAASRLSSPGAASRVSSAVT
SLVSSGGPTNPAALSNTISXVVSQIS

The [weblogo](#) created from 20 neighbouring amino acids of this motif is shown below



>gi|395318526|gb|AFN54362.1| major ampullate silk protein 1, partial [Argiope bruennichi]

GAASAAAAAGGQGGRGFGGLGSQGEGGAGQGGAGAAAAAAGADGGFGLGGYGAGRGYAGLGGAGGA
GAASAAAAAGGQGGRSFGGLGSQGAGGAGQGGAGAAAAAAGADGGSGLGGYGAGRGYGASLGGADGA
GAASAAAAAGGQGGRGFGGLGSQGAGGAGQGGAGAAAAAASGDGGSGLGGYGAGRGYAGLGGAGGA
GAASAAAAAGGEGGRGFGGLGSQGAGGAGQGGSLAAAAAAGADGGSGLGGYGAGRGYAGLGGADGA
GAASAAAAAGGQGGRGFGRLGSQGAGGAGQGGAGAAAVAAAGGDGGSGLGGYGAGRGYAGLGGAGGA
GAASAAAAAGGQGGRGFGGLGSQGAGGAGQGGAGAAASGDGGSGLGGYGAGRGYAGLGGADGAGAASA
ASAAGGQGGRGFGGLGSQGAGGAGQGGAGAAAAATAGGDGGSGLGGYGAGRGYAGLGGAGGAGAASA
AAAAGGQGGRGFGGLGSQGAGGAGQGGAGAAAAAAGGDGGSGLGGYGAGRGHGVGLGGAGGAGAASA
AAAAGGQGGRGFGGLGSQGAGGAGQGGAGAAAAAAGGDGGSGLGGYGAGRGHGAGLGGAGGAGAASA
AAAAGGQGGRGFGGLGSQSGGAGQGGSGAAAAAAGGDGGSGLGGYGAGRGYAGLGGAGGAGAASA
AAAAGGQGGRGFGGLGSQGAGGAGQGGSGAAAAAAVADGGSGLGGYGAGRGYAGLGGAGGAGAASA
AAATGGQGGRGFGGLSSQGAGGAGQGGSGAAAAAAGGDGGSLGDYGAGRGYAGLGGAGGAGVASA
AASAAASRLSSPSAASRVSSAVTSLISGGGPTNPAALSNTFNSNVVYQISVSSPGLSGCDVLIQALLELVS
ALVHILGSAIIGQVNSSAAGESASLVGQSVYQAFS

The [weblogo](#) created from 20 neighbouring amino acids of this motif is shown below

