

<110> Latvian Institute of Organic Synthesis

<120> Chemically modified engineered spider silk proteins

<160> 8

<210> SEQ ID NO: 1 (**F2M**)

<211> 244

<212> PRT

<213> Artificial sequence

<400>

MGKHHHHHPMSDYDIPTT ENLYFQG
IANSPFSNPNTAEAFARSFVSNIVSSGEFGAQAEDFEDIIQSLIQAQSMGKGRHDTKAKA
KAMQVALASSIAELVIAESSGGDVQRKTNVISNALRNALMSTTGSPNEEFVHEVQDLIQ
MLSQEQINEV
GNSGRGQGGYGQSGGNAAAAAAAAAAAAAAAAAGQGGQGGYGRQSQGAGSAAAAAA
AAAAAAAAAAGSGQGGYGQGGYGQSGNS C

<110> Latvian Institute of Organic Synthesis

<120> Chemically modified engineered spider silk proteins

<160> 8

<210> SEQ ID NO: 2 (**F4M**)

<211> 310

<212> PRT

<213> Artificial sequence

<400>

MGKHHHHHPMSDYDIPTT

ENLYFQG

IANSPFSNPNTAEAFARSFVSNIVSSGEFGAQGAEDFEDIIQSLIQAQSMGKGRHDTKAKA

KAMQVALASSIAELVIAESSGGDVQRKTNVISNALRNALMSTTGSPNEEFVHEVQDLIQ

MLSQEQINEV

GNSGRGQGGYGQSGGNAAAAAAAAAAAAAAAAAGQGGQGGYGRQSQGAGSAAAAAA

AAAAAAAAAAPGNSGRGQGGYGQSGGNAAAAAAAAAAAAAAAAAGQGGQGGYGRQS

QGAGSAAAAAAAAAAAAAAAAAGSGQGGYGGQGGYGGQSGNS C

<110> Latvian Institute of Organic Synthesis

<120> Chemically modified engineered spider silk proteins

<160> 8

<210> SEQ ID NO: 3 (**F6M**)

<211> 376

<212> PRT

<213> Artificial sequence

<400>

MGKHHHHHPMSDYDIPTT

ENLYFQG

IANSPFSNPNTAEAFARFVSNIVSSGEFGAQGAEDFEDIIQSLIQAQSMGKGRHDTKAKA

KAMQVALASSIAELVIAESSGGDVQRKTNVISNALRNALMSTTGSPNEEFVHEVQDLIQ

MLSQEQINEV

GNSGRGQGGYGQSGGNAAAAAAAAAAAAAAAAAGQGGQGGYGRQSQGAGSAAAAAA

AAAAAAAAAAPGNSGRGQGGYGQSGGNAAAAAAAAAAAAAAAAAGQGGQGGYGRQS

QGAGSAAAAAAAAAAAAAAAAAAPGNSGRGQGGYGQSGGNAAAAAAAAAAAAAAAAAG

QGGQGGYGRQSQGAGSAAAAAAAAAAAAAAAAAGSGQGGYGGQGGYGGYQSGNS C

<110> Latvian Institute of Organic Synthesis

<120> Chemically modified engineered spider silk proteins

<160> 8

<210> SEQ ID NO: 4 (**F2M***)

<211> 245

<212> PRT

<213> Artificial sequence

<400>

MGKHHHHHPMSDYDIPTT

ENLYFQG

IANSPFSNPNTAEAFARSFVSNIVSSGEFGAQAEDFEDIIQSLIQAQSMGKGRHDTKAKA

KAMQVALASSIAELVIAESSGGDVQRKTNVISNALRNALMSTTGSPNEEFVHEVQDLIQ

MLSQEQINEV

GNSGRGQGGYGQSGGNAAAAAAAAAAAAAAAAAGQGGQGGYGRQSQGAGSAAAAAA

AAAAAAAAAAGSGQGGYGGQGGYGGQSGNS CA

<110> Latvian Institute of Organic Synthesis

<120> Chemically modified engineered spider silk proteins

<160> 8

<210> SEQ ID NO: 5 (**F1F**)

<211> 620

<212> PRT

<213> Artificial sequence

<400>

MGKHHHHHPMSDYDIPTT ENLYFQG
IANSPFSNPNTAEAFARSFVSNIVSSGEFGAQAEDFEDIIQSLIQAQSMGKGRHDTKAKA
KAMQVALASSIAELVIAESSGGDVQRKTNVISNALRNALMSTTGSPNEEFVHEVQDLIQ
MLSQEQINEV
DTSGPGQYYRSSSSGGGGGGQGGPVVTEGPGGAGPGGYGPGGSGPGGYGPGGSGPGGY
GPGGSGPGGYGPGGSGPGGYGPGGSGPGGYGPGGYGPGGSGPGGYGPGGTGPGGSGPG
GYGPGGSGPGGSGPGGYGPGGSGPGGFPGGSGPGGYGPGGSGPGGAGPGGVGPGGFG
PGGAGPGGAGPGGAGPGGAGPGGAGPGGAGPGGAGPGGAGPGGAGPGGAGPGGAGG
AGGAGGAGGSGGAGGSGGTIIEDLDITIDGADGPITISEELTISGAGGSGPGGAGPGGVG
PGGSGPGGVGPGGSGPGGVGPGGSGPGGVGPGGAGGPYPGGSGPGGAGGAGGPGGA
YGPGGSYGPGGSGGPGGAGGPYPGGEGPGGAGGPYPGGAGGPYPGGAGGPYPGP
GEGGPYPGGSYGPGGAGGPYPGGPYGPGGEGPGGAGGPYPGGVGPGGSGPGGAA
A C

<110> Latvian Institute of Organic Synthesis

<120> Chemically modified engineered spider silk proteins

<160> 8

<210> SEQ ID NO: 6 (**F1F***)

<211> 621

<212> PRT

<213> Artificial sequence

<400>

```

MGKHHHHHHHPMSDYDIPTT                                ENLYFQG
IANSPFSNPNTAEAFARSFVSNIVSSGEFGAQAEDFEDIIQSLIQAQSMGKGRHDTKAKA
KAMQVALASSIAELVIAESSGGDVQRKTNVISNALRNALMSTTGSPNEEFVHEVQDLIQ
MLSQEQINEV
DTSGPGQYYRSSSSGGGGGGQGGPVVTEGPGGAGPGGYGPGGSGPGGYGPGGSGPGGY
GPGGSGPGGYGPGGSGPGGYGPGGSGPGGYGPGGYGPGGSGPGGYGPGGTGPGGSGPG
GYGPGGSGPGGSGPGGYGPGGSGPGGFPGGSGPGGYGPGGSGPGGAGPGGVGPGGFG
PGGAGPGGAGPGGAGPGGAGPGGAGPGGAGPGGAGPGGAGPGGAGPGGAGPGGAGG
AGGAGGAGGSGGAGGSGGTIIEDLDITIDGADGPITISEELTISGAGGSGPGGAGPGGVG
PGGSGPGGVGPGGSGPGGVGPGGSGPGGVGPGGAGGPYPGGSGPGGAGGAGGPGGA
YGPGGSYGPGGSGGPGGAGGPYPGGEGPGGAGGPYPGGAGGPYPGGAGGPYPGP
GEGGPYPGGSYGPGGAGGPYPGGPYGPGGEGPGGAGGPYPGGVGPGGSGPGGAA
A CA

```

<110> Latvian Institute of Organic Synthesis

<120> Chemically modified engineered spider silk proteins

<160> 8

<210> SEQ ID NO: 7 (**F1T**)

<211> 336

<212> PRT

<213> Artificial sequence

<400>

MGKHHHHHPMSDYDIPTT ENLYFQG
IANSPFSNPNTAEAFARSFVSNIVSSGEFGAQGAEDFEDIIQSLIQAQSMGKGRHDTKAKA
KAMQVALASSIAELVIAESSGGDVQRKTNVISNALRNALMSTTGSPNEEFVHEVQDLIQ
MLSQEQINEV
SAARSGAQSSSTTTTSSTSGSQAASSSASQASASSFAQASSASLAASSSFSSAFSSANTLSA
LGNVAYQLGFNVANTLGLGNAAGLGAALSQAVSSVGVGASSGTYANAVSNAVGGFLA
GQGILNGANAASLASSFASALSASAASVASSSAAQSASQSQAASAFSRAASQSASQAA
A C

<110> Latvian Institute of Organic Synthesis

<120> Chemically modified engineered spider silk proteins

<160> 8

<210> SEQ ID NO: 8 (**F1T***)

<211> 337

<212> PRT

<213> Artificial sequence

<400>

MGKHHHHHPMSDYDIPTT ENLYFQG
IANSPFSNPNTAEAFARSFVSNIVSSGEFGAQGAEDFEDIIQSLIQAQSMGKGRHDTKAKA
KAMQVALASSIAELVIAESSGGDVQRKTNVISNALRNALMSTTGSPNEEFVHEVQDLIQ
MLSQEQINEV
SAARSGAQSSSTTTTSSTSGSQAASSSASQASASSFAQASSASLAASSSFSSAFSSANTLSA
LGNVAYQLGFNVANTLGLGNAAGLGAALSQAVSSVGVGASSGTYANAVSNAVGGFLA
GQGILNGANAASLASSFASALSASAASVASSSAAQSASQSQAASAFSRAASQSASQAA
A CA