



UNIVERSITAT DE
BARCELONA

Study of extracellular matrix remodeling and the role of periostin b during zebrafish heart regeneration

Anna Garcia Puig

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Table 1. Proteome of control hearts (>3 spectral counts)

| Gene symbol | NAME | Accession number | % Seq. Coverage | Unique peptides | MW | ECM proteins | Spec. Counts Average normalized | GO Molecular function |
|--------------|--|------------------|-----------------|-----------------|----------|--------------|---------------------------------|--|
| 1 vmhcl | ventricular myosin heavy chain-like | F1QSE1 | 49.3 | 108 | 223 kDa | | 306 | Enzyme regulator activity, catalytic activity, structural molecule activity |
| 2 my7 | myosin-7 | A0A0G2L365 | 18.0 | 3 | 225 kDa | | 86 | Enzyme regulator activity, catalytic activity, structural molecule activity |
| 3 col6a3 | Collagen Type VI, $\alpha 3$ chain | F1Q4X1 | 17.1 | 41 | 309 kDa | * | 68 | Receptor activity, transporter activity |
| 4 col1a2 | Collagen Type I, $\alpha 2$ chain | Q61QX2 | 18.4 | 20 | 127 kDa | * | 64 | Receptor activity, transporter activity, structural molecule activity |
| 5 hspg2 | Heparan sulfate proteoglycan 2 (Perlecan) | F1RCF6 | 17.7 | 50 | 391 kDa | * | 56 | Receptor activity |
| 6 desma | desmin α | F1R8W4 | 48.8 | 24 | 54 kDa | | 55 | Structural molecule activity |
| 7 fn1b | Fibronectin 1b | A2CEW3 | 51.7 | 94 | 276 kDa | * | 50 | Binding |
| 8 ahnak | AHNAK nucleoprotein | F1QZ50 | 8.8 | 40 | 685 kDa | | 48 | Binding |
| 9 fga | Fibrinogen, α polypeptide | B8ASL6 | 49.1 | 48 | 75 kDa | * | 41 | Binding |
| 10 actc1a | Actin, alpha, cardiac muscle 1a | Q61QR3 | 61.3 | 23 | 42 kDa | | 39 | Structural molecule activity |
| 11 tpm4a | tropomyosin 4a | Q7T3F0 | 27.8 | 5 | 33 kDa | | 38 | Catalytic activity, structural molecule activity |
| 12 col1a1b | Collagen Type I, $\alpha 1b$ chain | F1QDL1 | 13.2 | 20 | 137 kDa | * | 37 | Structural molecule activity, receptor activity, transporter activity |
| 13 cmilc1 | cardiac myosin light chain-1 | B0R0F7 | 60.7 | 11 | 22 kDa | | 35 | Structural molecule activity |
| 14 fgg | Fibrinogen, γ polypeptide | Q7ZVG7 | 78.7 | 43 | 49 kDa | * | 35 | Binding |
| 15 spna2 | spectrin alpha 2 | F1R446 | 24.6 | 44 | 285 kDa | | 34 | Binding, structural molecule activity |
| 16 fgb | Fibrinogen, β polypeptide | Q6NFE1 | 76.1 | 50 | 54 kDa | * | 25 | Binding |
| 17 col1a1a | Collagen Type I, $\alpha 1a$ chain | F1QIC9 | 14.6 | 17 | 137 kDa | * | 24 | Receptor activity, transporter activity, structural molecule activity |
| 18 col6a1 | Collagen Type VI, $\alpha 1$ chain | F1Q6P3 | 22.8 | 21 | 107 kDa | * | 22 | Receptor activity, transporter activity, structural molecule activity |
| 19 fnb2b | Fibillin 2b | E7FG71 | 13.1 | 19 | 212 kDa | * | 21 | Binding, structural molecule activity |
| 20 actb2 | β -Actin 2 | ABWG05 | 32 | 13 | 42 kDa | | 21 | Structural molecule activity |
| 21 emilin1b | Emilin 1b | F1Q9G3 | 28.3 | 25 | 117 kDa | * | 20 | Binding |
| 22 myhb | myosin, heavy chain b | F1QVX3 | 7 | 1 | 223 kDa | | 20 | Enzyme regulator activity, binding, catalytic activity, structural molecule activity |
| 23 ttna | titin α | F1R7N8 | 1.6 | 29 | 3090 kDa | | 20 | Catalytic activity, structural molecule activity, binding, enzyme regulator activity |
| 24 atp5b | ATP synthase subunit beta | ABWGC6 | 46.2 | 17 | 55 kDa | | 20 | Catalytic activity, transporter activity, binding |
| 25 atp5a1 | ATP synthase subunit alpha | Q08BA1 | 32.8 | 15 | 60 kDa | | 18 | Receptor activity, transporter activity, binding, catalytic activity |
| 26 sptb | spectrin, beta, erythrocytic | F1QQE5 | 14.9 | 25 | 273 kDa | | 16 | Binding, structural molecule activity |
| 27 postna | Periostin A | F1QM50 | 20.9 | 2 | 97 kDa | * | 16 | Binding |
| 28 mybpc3 | myosin binding protein C, cardiac | F1Q815 | 15.2 | 17 | 144 kDa | | 15 | Binding, structural molecule activity |
| 29 col6a2 | Collagen Type VI, $\alpha 2$ chain | E7FCV8 | 24.2 | 21 | 107 kDa | * | 15 | Receptor activity, transporter activity, structural molecule activity |
| 30 sptbn1 | spectrin, beta, non-erythrocytic 1 | A0A0G2L1F5 | 12.1 | 24 | 263 kDa | | 15 | Binding, structural molecule activity |
| 31 actn2b | actinin, alpha 2b | E9QFR8 | 22.7 | 17 | 103 kDa | | 15 | Binding |
| 32 krt8 | Keratin, type II cytoskeletal 8 | K2C8 | 19.6 | 12 | 58 kDa | | 15 | Structural molecule activity |
| 33 myl7 | Myosin light chain 2 | Q801M3 | 58.1 | 6 | 19 kDa | | 13 | Structural molecule activity |
| 34 tth2 | inter-alpha-trypsin inhibitor heavy chain 2 | Q5RH29 | 16.5 | 13 | 106 kDa | * | 12 | Enzyme regulator activity, Binding |
| 35 col4a1 | Collagen Type IV, $\alpha 1$ chain | F1Q855 | 3.5 | 4 | 154 kDa | * | 11 | Receptor activity, transporter activity, structural molecule activity |
| 36 col4a2 | Collagen Type IV, $\alpha 2$ chain | F1QZ18 | 4.9 | 6 | 165 kDa | * | 10 | Receptor activity, transporter activity, structural molecule activity |
| 37 col5a1 | Collagen Type V, $\alpha 1$ chain | F6NPA4 | 3.8 | 6 | 199 kDa | * | 10 | Structural molecule activity, binding |
| 38 ttncb | titin b | B05EY0 | 0.8 | 4 | 627 kDa | | 9 | Catalytic activity, binding |
| 39 col5a2a | Collagen Type V, $\alpha 2a$ chain | F1QT86 | 4.7 | 5 | 147 kDa | * | 9 | Structural molecule activity |
| 40 lamc1 | Laminin subunit γ -1 | Q1LVF0 | 8.1 | 10 | 176 kDa | * | 9 | Receptor activity |
| 41 emilin1a | Emilin 1a | F1QIC7 | 12.9 | 10 | 113 kDa | * | 8 | Binding |
| 42 col6a6 | Collagen Type VI, $\alpha 6$ chain | F1Q924E | 10.4 | 20 | 278 kDa | * | 7 | Receptor activity, transporter activity |
| 43 atp2a2a | Calcium-transporting ATPase | A9C3Q4 | 12.5 | 10 | 115 kDa | | 6 | Transporter activity, catalytic activity |
| 44 mb | myoglobin | Q6VN46 | 51.7 | 6 | 16 kDa | | 6 | Transporter activity, binding |
| 45 palm1b | paralemnin 1b | B0V0Y4 | 18.9 | 4 | 27 kDa | | 6 | Protein binding, D3 dopamine receptor binding |
| 46 atp1a1a.1 | ATPase, Na ⁺ /K ⁺ transporting, alpha 1a polypeptide, tandem duplica | Q9DGL6 | 8.7 | 6 | 113 kDa | | 6 | Transporter activity, catalytic activity |
| 47 mfpap5 | microfibrillar associated protein 5 | E9QC64 | 16.7 | 3 | 15 kDa | * | 5 | Structural molecule activity |
| 48 slc25a5 | Solute carrier family 25 alpha | Q81HI0 | 13.1 | 4 | 33 kDa | | 5 | transporter activity |
| 49 aldoaa | Fructose-bisphosphate aldolase | Q803Q7 | 25 | 7 | 40 kDa | | 4 | catalytic activity |
| 50 flna | filamin A, alpha | E9QIG2 | 3.6 | 6 | 273 kDa | | 4 | Binding |
| 51 mfpap2 | microfibrillar-associated protein 2 | F1QSF1 | 6.3 | 1 | 18 kDa | * | 4 | - |
| 52 slc8a1a | solute carrier family 8 | F1R4F4 | 9.8 | 6 | 107 kDa | | 4 | transporter activity |
| 53 slmapa | sarcolemma associated protein a | F6NHV5 | 8.3 | 6 | 94 kDa | | 4 | Binding |
| 54 ttn1 | Talin 1 | A0A0R4ID28 | 6.3 | 8 | 271 kDa | | 4 | Binding |
| 55 tpm2 | tropomyosin 1 (alpha) | F6NVA3 | 27.8 | 6 | 33 kDa | | 4 | Binding |
| 56 palm2 | paralemnin 2 | E7F8N8 | 7.8 | 6 | 92 kDa | | 4 | - |
| 57 plec | plectin a | ASWV02 | 1.5 | 6 | 523 kDa | | 4 | Binding, structural molecule activity |
| 58 postnb | Periostin B | Q75U66 | 37.1 | 19 | 86 kDa | * | 4 | Binding |
| 59 sorbs1 | sorbin and SH3 domain containing 1 | A0A0R4IP30 | 11.2 | 7 | 86 kDa | | 4 | Binding |
| 60 wfdc2 | wfdc2 | E7F3G3 | 26.8 | 5 | 18 kDa | | 4 | Binding, catalytic activity |
| 61 aco2 | Aconitate hydratase, mitochondrial | F8W4M7 | 10.9 | 6 | 86 kDa | | 3 | Binding, catalytic activity |
| 62 ldhba | L-lactate dehydrogenase B-A chain | Q9PVK4 | 11.4 | 3 | 36 kDa | | 3 | catalytic activity |
| 63 myom1b | myomesin 1b | A0A0R4IGQ8 | 4.9 | 7 | 181 kDa | | 3 | Binding, structural molecule activity |