

## Additional Table 3

### Protein sequences for Figure 3 (phylogeny of the multi-motif Bcl-2 family)

| Abbreviation | Source and identifier   |
|--------------|---|
| BCL2_HUMAN   | SWISS-PROT: P10415 BCL2_HUMAN   |
| BCLX_HUMAN   | SWISS-PROT: Q07817 BCLX_HUMAN   |
| MCL1_HUMAN   | SWISS-PROT: Q07820 MCL1_HUMAN   |
| B2LA1_HUMAN  | SWISS-PROT: Q16548 B2LA1_HUMAN  |
| BAXB_HUMAN   | SWISS-PROT: Q07814 BAXB_HUMAN   |
| BAK_HUMAN    | SWISS-PROT: Q16611 BAK_HUMAN  |
| BOK_HUMAN    | SWISS-PROT: Q9UMX3 BOK_HUMAN  |
| BCLW_HUMAN   | SWISS-PROT: Q92843 BCLW_HUMAN   |
| B2L14_HUMAN  | SWISS-PROT: Q9BZR8 B2L14_HUMAN  |
| B2L10_HUMAN  | SWISS-PROT: Q9HD36 B2L10_HUMAN  |
| B2L13_HUMAN  | SWISS-PROT: Q9BXK5 B2L13_HUMAN  |
| B2L12_HUMAN  | SWISS-PROT: Q9HB09 B2L12_HUMAN  |
| BFK_HUMAN    | NCBI: GI:58219054   |
| 18_MOUSE     | Ensembl release_38 pep.abinitio: GENSCAN00000155005 AC131316.8            |
| 19_MOUSE     | Ensembl release_38 pep.abinitio: GENSCAN00000169501 AC155838.7            |
| 20_MOUSE     | Ensembl release_38 pep.abinitio: GENSCAN00000171024 AC151602.4            |
| 21_MOUSE     | Ensembl release_38 pep.abinitio: GENSCAN00000175205 AL731857.9            |
| 22_MOUSE**   | Ensembl release_38 pep.abinitio: GENSCAN00000175288 CAAA01175390.1        |
| 23_MOUSE*    | Ensembl release_38 pep.abinitio: GENSCAN00000197433 AC156499.2            |
| 24_MOUSE*    | Ensembl release_38 pep.abinitio: GENSCAN00000199518 AC126256.4            |
| 25_MOUSE     | Ensembl release_38 pep.abinitio: GENSCAN00000210792 AC083894.21           |
| 26_MOUSE     | Ensembl release_38 pep.abinitio: GENSCAN00000212117 AC122842.3            |
| 27_MOUSE     | Ensembl release_38 pep.abinitio: GENSCAN00000212963 AC092479.16           |
| 28_MOUSE     | Ensembl release_38 pep.abinitio: GENSCAN00000213484 AC124698.4            |
| 29_MOUSE     | Ensembl release_38 pep.abinitio: GENSCAN00000225626 AC116591.4            |
| 30_MOUSE     | Ensembl release_38 pep.abinitio: GENSCAN00000225982 AC135634.4            |
| 31_MOUSE     | Ensembl release_38 pep.abinitio: GENSCAN00000195350 AC133947.3            |
| 32_CANFA     | Ensembl release_38 pep.abinitio: GENSCAN00000013988 contig_47224.1.158762 |
| 33_CANFA     | Ensembl release_38 pep.abinitio: GENSCAN00000014711 contig_17809.1.59485  |
| 34_CANFA*    | Ensembl release_38 pep.abinitio: GENSCAN00000024591 contig_37966.1.1676   |
| 35_CANFA     | Ensembl release_38 pep.abinitio: GENSCAN00000029675 contig_31336.1.156379 |
| 36_CANFA     | Ensembl release_38 pep.abinitio: GENSCAN00000029721 contig_27253.1.281043 |
| 37_CANFA     | Ensembl release_38 pep.abinitio: GENSCAN00000038708 contig_37968.1.11886  |
| 38_CANFA     | Ensembl release_38 pep.abinitio: GENSCAN00000038911 contig_54066.1.24669  |
| 39_CANFA     | Ensembl release_38 pep.abinitio: GENSCAN00000038917 contig_26592.1.2537   |
| 40_CANFA     | Ensembl release_38 pep.abinitio: GENSCAN00000047139 contig_27069.1.66900  |
| 41_CANFA*    | Ensembl release_38 pep.abinitio: GENSCAN00000052005 contig_27068.1.65375  |
| 42_CANFA     | Ensembl release_38 pep.abinitio: GENSCAN00000057635 contig_54096.1.55228  |
| 43_CANFA     | Ensembl release_38 pep.abinitio: GENSCAN00000063244 contig_17692.1.36407  |
| 44_CANFA     | Ensembl release_38 pep.abinitio: GENSCAN00000069143 contig_41106.1.174558 |
| 45_CANFA     | Ensembl release_38 pep.abinitio: GENSCAN00000075736 contig_14646.1.85472  |
| 46_CHICK     | Ensembl release_38 pep.abinitio: GENSCAN00000001666 Contig40.185          |
| 47_CHICK     | Ensembl release_38 pep.abinitio: GENSCAN00000002946 Contig4020.3          |
| 48_CHICK*    | Ensembl release_38 pep.abinitio: GENSCAN00000006579 Contig4020.2          |
| 49_CHICK*    | Ensembl release_38 pep.abinitio: GENSCAN00000007904 Contig40999.1         |
| 50_CHICK     | Ensembl release_38 pep.abinitio: GENSCAN00000012696 Contig70.87           |
| 51_CHICK*    | Ensembl release_38 pep.abinitio: GENSCAN00000018361 Contig7.471           |
| 52_CHICK*    | Ensembl release_38 pep.abinitio: GENSCAN00000037013 Contig7.470           |
| 53_CHICK     | Ensembl release_38 pep.abinitio: GENSCAN00000039579 Contig25.186          |
| 54_CHICK     | Ensembl release_38 pep.abinitio: GENSCAN00000041103 Contig18.70           |
| 55_CHICK     | Ensembl release_38 pep.abinitio: GENSCAN00000058906 Contig65.77           |
| 56_CHICK     | Ensembl release_38 pep.abinitio: GENSCAN00000063752 Contig342.4           |
| 57_CHICK*    | Ensembl release_38 pep.abinitio: GENSCAN00000067977 Contig65.335          |
| 58_XENTR     | Ensembl release_38 pep.abinitio: GENSCAN00000016377 scaffold_587          |
| 59_XENTR     | Ensembl release_38 pep.abinitio: GENSCAN00000034491 scaffold_151          |
| 60_XENTR     | Ensembl release_38 pep.abinitio: GENSCAN00000039279 scaffold_1061         |
| 61_XENTR     | Ensembl release_38 pep.abinitio: GENSCAN00000039870 scaffold_667          |
| 62_XENTR     | Ensembl release_38 pep.abinitio: GENSCAN00000045002 scaffold_341          |
| 63_XENTR*    | Ensembl release_38 pep.abinitio: GENSCAN00000045029 scaffold_341          |
| 64_XENTR     | Ensembl release_38 pep.abinitio: GENSCAN00000049076 scaffold_11321        |
| 65_XENTR     | Ensembl release_38 pep.abinitio: GENSCAN00000051638 scaffold_224          |
| 66_XENTR     | Ensembl release_38 pep.abinitio: GENSCAN00000059978 scaffold_439          |
| 67_XENTR     | Ensembl release_38 pep.abinitio: GENSCAN00000075618 scaffold_95           |
| 68_XENTR     | Ensembl release_38 pep.abinitio: GENSCAN00000077815 scaffold_921          |
| 69_XENTR*    | Ensembl release_38 pep.abinitio: GENSCAN00000037040 scaffold_1104         |

|             |   |
|-------------|---|
| 70_BRARE    | Ensembl release_38 pep.abinitio: GENSCAN0000000732 Zv5_scaffold151.8    |
| 71_BRARE    | Ensembl release_38 pep.abinitio: GENSCAN0000000751 AL928885.9.1-196857  |
| 72_BRARE    | Ensembl release_38 pep.abinitio: GENSCAN00000016930 Zv5_scaffold1280.1  |
| 73_BRARE    | Ensembl release_38 pep.abinitio: GENSCAN00000017647 AL935189.7.1-170193 |
| 74_BRARE    | Ensembl release_38 pep.abinitio: GENSCAN00000017837 BX469889.7.2001-    |
| 75_BRARE    | Ensembl release_38 pep.abinitio: GENSCAN00000018684 BX950194.9.1-122061 |
| 76_BRARE    | Ensembl release_38 pep.abinitio: GENSCAN00000020548 BX897733.8.2001-    |
| 77_BRARE    | Ensembl release_38 pep.abinitio: GENSCAN00000020578 Zv5_scaffold78.1    |
| 78_BRARE*   | Ensembl release_38 pep.abinitio: GENSCAN00000027469 Zv5_scaffold244.4   |
| 79_BRARE    | Ensembl release_38 pep.abinitio: GENSCAN00000027475 Zv5_scaffold244.4   |
| 80_BRARE    | Ensembl release_38 pep.abinitio: GENSCAN00000033938 Zv5_scaffold945.1   |
| 81_BRARE    | Ensembl release_38 pep.abinitio: GENSCAN00000035699 BX323598.9.1-197329 |
| 82_BRARE    | Ensembl release_38 pep.abinitio: GENSCAN00000036923 Zv5_scaffold1215.4  |
| 83_BRARE    | Ensembl release_38 pep.abinitio: GENSCAN00000038963 Zv5_scaffold447.1   |
| 84_BRARE    | Ensembl release_38 pep.abinitio: GENSCAN00000039526 BX470166.11.2001-   |
| 85_BRARE    | Ensembl release_38 pep.abinitio: GENSCAN00000027319 BX248517.10.48191-  |
| 86_FUGRU    | Ensembl release_38 pep.abinitio: GENSCANSLICE00000001649 scaffold_343   |
| 87_FUGRU    | Ensembl release_38 pep.abinitio: GENSCANSLICE00000004269 scaffold_73    |
| 88_FUGRU    | Ensembl release_38 pep.abinitio: GENSCANSLICE00000005941 scaffold_285   |
| 89_FUGRU    | Ensembl release_38 pep.abinitio: GENSCANSLICE00000012751 scaffold_41    |
| 90_FUGRU    | Ensembl release_38 pep.abinitio: GENSCANSLICE00000014016 scaffold_79    |
| 91_FUGRU*   | Ensembl release_38 pep.abinitio: GENSCANSLICE00000015032 scaffold_85    |
| 92_FUGRU    | Ensembl release_38 pep.abinitio: GENSCANSLICE00000015496 scaffold_41    |
| 93_FUGRU    | Ensembl release_38 pep.abinitio: GENSCANSLICE00000020201 scaffold_175   |
| 94_FUGRU    | Ensembl release_38 pep.abinitio: GENSCANSLICE00000021934 scaffold_370   |
| 95_FUGRU    | Ensembl release_38 pep.abinitio: GENSCANSLICE00000022364 scaffold_174   |
| 96_FUGRU*   | Ensembl release_38 pep.abinitio: GENSCANSLICE00000022457 scaffold_67    |
| 97_FUGRU    | Ensembl release_38 pep.abinitio: GENSCANSLICE00000028825 scaffold_65    |
| 98_FUGRU    | Ensembl release_38 pep.abinitio: GENSCANSLICE00000028826 scaffold_65    |
| 99_FUGRU    | Ensembl release_38 pep.abinitio: GENSCANSLICE00000026604 scaffold_128   |
| 100_TETNG   | Ensembl release_38 pep.abinitio: GIDT00016701001 SCAF14653              |
| 101_TETNG   | Ensembl release_38 pep.abinitio: GSCT00000143001 SCAF14528              |
| 102_TETNG   | Ensembl release_38 pep.abinitio: GSCT00001457001 SCAF14566              |
| 103_TETNG   | Ensembl release_38 pep.abinitio: GSCT00003389001 SCAF14729              |
| 104_TETNG   | Ensembl release_38 pep.abinitio: GSCT00005369001 SCAF14992              |
| 105_TETNG   | Ensembl release_38 pep.abinitio: GSCT00005404001 SCAF14992              |
| 106_TETNG   | Ensembl release_38 pep.abinitio: GSCT00011096001 SCAF7631               |
| 107_TETNG   | Ensembl release_38 pep.abinitio: GSCT00016806001 SCAF3587               |
| 108_TETNG   | Ensembl release_38 pep.abinitio: GSCT00018946001 SCAF10464              |
| 109_TETNG   | Ensembl release_38 pep.abinitio: GSCT00022958001 SCAF13692              |
| 110_TETNG   | Ensembl release_38 pep.abinitio: GWSST00007956001 SCAF14700             |
| 111_TETNG*  | Ensembl release_38 pep.abinitio: GWSST00017694001 SCAF3333              |
| 112_TETNG** | Ensembl release_38 pep.abinitio: GWSST00017797001 SCAF3587              |
| 113_BRAFL   | JGI Brachistoma floridae v1.0: e_gw.30.321.1                            |
| 114_BRAFL   | JGI Brachistoma floridae v1.0: e_gw.394.70.1                            |
| 115_BRAFL   | JGI Brachistoma floridae v1.0: e_gw.493.26.1                            |
| 116_BRAFL   | JGI Brachistoma floridae v1.0: fgenes2_pg.scaffold_16000109             |
| 117_BRAFL   | JGI Brachistoma floridae v1.0: fgenes2_pg.scaffold_2229000001           |
| 118_BRAFL   | JGI Brachistoma floridae v1.0: fgenes2_pg.scaffold_73000155             |
| 119_BRAFL   | JGI Brachistoma floridae v1.0: fgenes2_pg.scaffold_91000061             |
| 120_CIOIN   | Ensembl release_38 pep.abinitio: GENSCAN00000094137 4q_317              |
| 121_STRPU   | HGSC Spur_v2: Scaffold_v2_39347_genscan_25 Scaffold_v2_39347            |
| 122_STRPU   | HGSC Spur_v2: Scaffold_v2_86134_genscan_4 Scaffold_v2_86134             |
| 123_STRPU   | HGSC Spur_v2: Scaffold_v2_44505_genscan_12 Scaffold_v2_44505            |
| 124_STRPU   | HGSC Spur_v2: Scaffold_v2_86172_genscan_1 Scaffold_v2_86172             |
| 125_STRPU   | HGSC Spur_v2: Scaffold_v2_5975_genscan_1 Scaffold_v2_5975               |
| 126_STRPU   | HGSC Spur_v2: Scaffold_v2_33343_genscan_2 Scaffold_v2_33343             |
| 127_STRPU   | HGSC Spur_v2: Scaffold_v2_65149_genscan_12 Scaffold_v2_65149            |
| 128_STRPU   | HGSC Spur_v2: Scaffold_v2_9776_genscan_3 Scaffold_v2_9776               |
| Debcl_DROME | Ensembl release_38 pep.abinitio: GENSCAN00000014809 2R_44               |
| Buffy_DROME | Ensembl release_38 pep.abinitio: SNAP00000038892 2R_145                 |
| CED9_CAEEL  | Ensembl release_38 pep.abinitio: GENEFINDER00000031967 Z29443.1         |
| CED9_CAEER  | SWISS-PROT: P41957 CED9_CAEER   |
| 136_NEMVE   | JGI Nematostella vectensis v1.0: e_gw.125.48.1                          |
| 137_NEMVE   | JGI Nematostella vectensis v1.0: e_gw.255.21.1                          |
| 138_NEMVE   | JGI Nematostella vectensis v1.0: e_gw.472.19.1                          |
| 139_NEMVE   | JGI Nematostella vectensis v1.0: e_gw.55.77.1                           |
| 140_NEMVE   | JGI Nematostella vectensis v1.0: e_gw.56.102.1                          |
| 141_NEMVE   | JGI Nematostella vectensis v1.0: estExt_fgenes1_pg.C_1400041            |
| 142_NEMVE   | JGI Nematostella vectensis v1.0: estExt_fgenes1_pg.C_2300022            |
| 143_NEMVE   | JGI Nematostella vectensis v1.0: fgenes1_pg.scaffold_1000191            |
| 144_GEOCY   | EMBL: AJ293508  |
| 145_LUBBA   | NCBI: GI:92011891   |

|           |                    |
|-----------|--------------------|
| 146_SUBDO | NCBI: GI:55770952  |
| 147_HYDAT | NCBI: GI:118505072 |
| 281_MOUSE | NCBI: GI:2493276   |
| 282_MOUSE | NCBI: GI:21553305  |

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\*These 15 sequences are not shown in Figure 3 because they match the Bcl-2 Is HMM (Pfam 21.0) with an E-value larger than 0.3.

\*\*These 2 sequences are not shown in Figure 3 because they appear redundant and/or are the result of questionable assemblies.