**Supplementary File 3: SEFIR domain-containing proteins**

| **Uniprot ID** | **Gene name** | **Species** |
| --- | --- | --- |
| **ACT1** |  |  |
| CIKS\_HUMAN | TRAF3IP2 C6orf2 C6orf4 C6orf5 C6orf6 | *Homo sapiens* |
| Q8N7N6\_MOUSE | Traf3ip2 mCG\_1382 | *Mus musculus* |
| G3HMS0\_CRIGR | I79\_012042 | *Cricetulus griseus* |
| A0A091DHE8\_FUKDA | H920\_08094 | *Fukomys damarensis* |
| L5JPG6\_PTEAL | PAL\_GLEAN10018615 | *Pteropus alecto* |
| G1SQH7\_RABIT | TRAF3IP2 | *Oryctolagus cuniculus* |
| L5M3H8\_MYODS | MDA\_GLEAN10019010 | *Myotis davidii* |
| V8PFR5\_OPHHA | TRAF3IP2 L345\_01315 | *Ophiophagus hannah* |
| Q28HY6\_XENTR | traf3ip2 traf3ip3 TEgg012b24.1-001 | *Xenopus tropicalis* |
| C3Z1H5\_BRAFL | BRAFLDRAFT\_225945 | *Branchiostoma floridae* |
| C3Z1H6\_BRAFL | BRAFLDRAFT\_82312 | *Branchiostoma floridae* |
| K1QKG1\_CRAGI | CGI\_10027691 | *Crassostrea gigas* |
| K1QRW7\_CRAGI | CGI\_10027692 | *Crassostrea gigas* |
|  |  |  |
| **IL17RA** |  |  |
| I17RA\_HUMAN | IL17RA IL17R | *Homo sapiens* |
| H2QL69\_PANTR | IL17RA | *Pan troglodytes* |
| G1R8G7\_NOMLE | IL17RA | *Nomascus leucogenys* |
| F6Z8G1\_MACMU | IL17RA | *Macaca mulatta* |
| A0A096NVX3\_PAPAN | IL17RA | *Papio anubis* |
| A0A0D9RPW9\_CHLSB | IL17RA | *Chlorocebus sabaeus* |
| F7GCI2\_CALJA | IL17RA | *Callithrix jacchus* |
| H0XIV2\_OTOGA | IL17RA | *Otolemur garnettii* |
| I17RA\_MOUSE | Il17ra Il17r | *Mus musculus* |
| D4A740\_RAT | Il17ra | *Rattus norvegicus* |
| M3Z325\_MUSPF | IL17RA | *Mustela putorius furo* |
| H0W275\_CAVPO | IL17RA | *Cavia porcellus* |
| M3WVX7\_FELCA | IL17RA | *Felis catus* |
| F1Q490\_CANLF | IL17RA | *Canis lupus familiaris* |
| F1N2C5\_BOVIN | IL17RA | *Bos taurus* |
| F6XT99\_HORSE | IL17RA | *Equus caballus* |
| G1TZF2\_RABIT | IL17RA | *Oryctolagus cuniculus* |
| G1LBG2\_AILME | IL17RA | *Ailuropoda melanoleuca* |
| G1P0N9\_MYOLU | IL17RA | *Myotis lucifugus* |
| G3SZ94\_LOXAF | IL17RA | *Loxodonta africana* |
| F6XBR1\_MONDO | IL17RA | *Monodelphis domestica* |
| F7BLH0\_ORNAN | IL17RA | *Ornithorhynchus anatinus* |
| G3VBP9\_SARHA | IL17RA | *Sarcophilus harrisii* |
| U3IYH9\_ANAPL | IL17RA | *Anas platyrhynchos* |
| U3JK24\_FICAL | IL17RA | *Ficedula albicollis* |
| G3UUX1\_MELGA | IL17RA | *Meleagris gallopavo* |
| H0ZQK2\_TAEGU | IL17RA | *Taeniopygia guttata* |
| G1KY25\_ANOCA | IL17RA | *Anolis carolinensis* |
| V8P818\_OPHHA | IL17RA L345\_04043 | *Ophiophagus hannah* |
| H3B9K7\_LATCH | IL17RA | *Latimeria chalumnae* |
| W5K1G6\_ASTMX | IL17RA | *Astyanax mexicanus* |
| F2Z4X3\_DANRE | il17ra1a | *Danio rerio* |
| W5NGW9\_LEPOC | IL17RA | *Lepisosteus oculatus* |
| A0A087XLN9\_POEFO | IL17RA | *Poecilia formosa* |
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| **IL17RB** |  |  |
| I17RB\_HUMAN | IL17RB CRL4 EVI27 IL17BR NQ2501/PRO19612 | *Homo sapiens* |
| G3QHE5\_GORGO | IL17RB | *Gorilla gorilla gorilla* |
| G1R6J8\_NOMLE | IL17RB | *Nomascus leucogenys* |
| F6SIU7\_MACMU | IL17RB | *Macaca mulatta* |
| A0A096MY23\_PAPAN | IL17RB | *Papio anubis* |
| A0A0D9RKH6\_CHLSB | IL17RB | *Chlorocebus sabaeus* |
| F7E499\_CALJA | IL17RB | *Callithrix jacchus* |
| H0XGG1\_OTOGA | IL17RB | *Otolemur garnettii* |
| D3Z4T0\_MOUSE | Il17rb | *Mus musculus* |
| B5DF15\_RAT | Il17rb Il17rb\_predicted rCG\_42317 | *Rattus norvegicus* |
| I3LWR8\_ICTTR | IL17RB | *Ictidomys tridecemlineatus* |
| M3YZG2\_MUSPF | IL17RB | *Mustela putorius furo* |
| H0VS75\_CAVPO | IL17RB | *Cavia porcellus* |
| M3W4E6\_FELCA | IL17RB | *Felis catus* |
| J9P1Q7\_CANLF | IL17RB | *Canis lupus familiaris* |
| A3KN55\_BOVIN | IL17RB | *Bos taurus* |
| F6SPF8\_HORSE | IL17RB | *Equus caballus* |
| G1T5J5\_RABIT | IL17RB | *Oryctolagus cuniculus* |
| W5Q2V7\_SHEEP | IL17RB | *Ovis aries* |
| F1SH81\_PIG | IL17RB | *Sus scrofa* |
| G1L6L9\_AILME | IL17RB | *Ailuropoda melanoleuca* |
| G3T6Y8\_LOXAF | IL17RB | *Loxodonta africana* |
| F6Q0J4\_MONDO | IL17RB | *Monodelphis domestica* |
| U3IVR2\_ANAPL | IL17RB | *Anas platyrhynchos* |
| G1KLE5\_ANOCA | IL17RB | *Anolis carolinensis* |
| V8NY88\_OPHHA | IL17RB L345\_07211 | *Ophiophagus hannah* |
| H3ARE8\_LATCH | IL17RB | *Latimeria chalumnae* |
| W5N9Y1\_LEPOC | IL17RB | *Lepisosteus oculatus* |
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| **IL17RC** |  |  |
| H2QM12\_PANTR | IL17RC | *Pan troglodytes* |
| G3RQ92\_GORGO | IL17RC | *Gorilla gorilla gorilla* |
| H2PA42\_PONAB | IL17RC | *Pongo abelii* |
| A0A096N591\_PAPAN | IL17RC | *Papio anubis* |
| F7CBX8\_CALJA | IL17RC | *Callithrix jacchus* |
| H0X4Z9\_OTOGA | IL17RC | *Otolemur garnettii* |
| I17RC\_MOUSE | Il17rc | *Mus musculus* |
| D3ZIM0\_RAT | Il17rc | *Rattus norvegicus* |
| I3LZW7\_ICTTR | IL17RC | *Ictidomys tridecemlineatus* |
| H0V8D0\_CAVPO | IL17RC | *Cavia porcellus* |
| M3WKA1\_FELCA | IL17RC | *Felis catus* |
| E2RGZ1\_CANLF | IL17RC | *Canis lupus familiaris* |
| E1BPP5\_BOVIN | IL17RC | *Bos taurus* |
| G1U3Z7\_RABIT | IL17RC | *Oryctolagus cuniculus* |
| W5P675\_SHEEP | IL17RC | *Ovis aries* |
| F1SQE0\_PIG | IL17RC | *Sus scrofa* |
| G1MCL8\_AILME | IL17RC | *Ailuropoda melanoleuca* |
| G1P6D4\_MYOLU | IL17RC | *Myotis lucifugus* |
| G3UD56\_LOXAF | IL17RC | *Loxodonta africana* |
| F7D217\_MONDO | IL17RC | *Monodelphis domestica* |
| F7A8Y8\_ORNAN | IL17RC | *Ornithorhynchus anatinus* |
| U3KEW0\_FICAL | IL17RC | *Ficedula albicollis* |
| G1KI08\_ANOCA | IL17RC | *Anolis carolinensis* |
| M4ASQ8\_XIPMA | IL17RC | *Xiphophorus maculatus* |
| H2ZU29\_LATCH | IL17RC | *Latimeria chalumnae* |
| A0A087Y9C5\_POEFO | IL17RC | *Poecilia formosa* |
| H2TK03\_TAKRU | IL17RC | *Takifugu rubripes* |
| Q4RJU4\_TETNG | IL17RC GSTENG00033274001 | *Tetraodon nigroviridis* |
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| **IL17RD** |  |  |
| I17RD\_HUMAN | IL17RD IL17RLM SEF UNQ6115/PRO20026 | *Homo sapiens* |
| H2QMT9\_PANTR | IL17RD | *Pan troglodytes* |
| G3QQP1\_GORGO | IL17RD | *Gorilla gorilla gorilla* |
| H2PAG0\_PONAB | IL17RD | *Pongo abelii* |
| G1R6M3\_NOMLE | IL17RD | *Nomascus leucogenys* |
| F7HIX6\_MACMU | IL17RD | *Macaca mulatta* |
| A0A0D9RK31\_CHLSB | IL17RD | *Chlorocebus sabaeus* |
| F7EEM3\_CALJA | IL17RD | *Callithrix jacchus* |
| H0WX16\_OTOGA | IL17RD | *Otolemur garnettii* |
| I17RD\_MOUSE | Il17rd Il17rlm Sef | *Mus musculus* |
| D3ZGQ0\_RAT | Il17rd | *Rattus norvegicus* |
| I3LWH7\_ICTTR | IL17RD | *Ictidomys tridecemlineatus* |
| M3YZI8\_MUSPF | IL17RD | *Mustela putorius furo* |
| H0VEY7\_CAVPO | IL17RD | *Cavia porcellus* |
| M3W0K4\_FELCA | IL17RD | *Felis catus* |
| F1Q0W5\_CANLF | IL17RD | *Canis lupus familiaris* |
| E1BP15\_BOVIN | IL17RD | *Bos taurus* |
| F6W2W1\_HORSE | IL17RD | *Equus caballus* |
| G1T6M7\_RABIT | IL17RD | *Oryctolagus cuniculus* |
| W5PZ60\_SHEEP | IL17RD | *Ovis aries* |
| K7GPZ0\_PIG | IL17RD | *Sus scrofa* |
| D2GWZ7\_AILME | IL17RD PANDA\_001376 | *Ailuropoda melanoleuca* |
| G1NZF4\_MYOLU | IL17RD | *Myotis lucifugus* |
| G3T9K3\_LOXAF | IL17RD | *Loxodonta africana* |
| F7CYL0\_ORNAN | IL17RD | *Ornithorhynchus anatinus* |
| U3I5B9\_ANAPL | IL17RD | *Anas platyrhynchos* |
| U3K1F2\_FICAL | IL17RD | *Ficedula albicollis* |
| I17RD\_CHICK | IL17RD SEF | *Gallus gallus* |
| G1N3D6\_MELGA | IL17RD | *Meleagris gallopavo* |
| H0Z9Y6\_TAEGU | IL17RD | *Taeniopygia guttata* |
| G1KEK5\_ANOCA | IL17RD | *Anolis carolinensis* |
| V8PET4\_OPHHA | IL17RD L345\_01760 | *Ophiophagus hannah* |
| F6ZRR0\_XENTR | il17rd | *Xenopus tropicalis* |
| H3ANI2\_LATCH | IL17RD | *Latimeria chalumnae* |
| I17RD\_DANRE | il17rd cb208 sef | *Danio rerio* |
| C3YAT4\_BRAFL | BRAFLDRAFT\_102559 | *Branchiostoma floridae* |
| K1QKP5\_CRAGI | CGI\_10002512 | *Crassostrea gigas* |
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| **IL17RE** |  |  |
| F7HK29\_MACMU | IL17RE | *Macaca mulatta* |
| F6W560\_CALJA | IL17RE | *Callithrix jacchus* |
| I17RE\_MOUSE | Il17re | *Mus musculus* |
| I17RE\_RAT | Il17re | *Rattus norvegicus* |
| M3Z0C4\_MUSPF | IL17RE | *Mustela putorius furo* |
| E2RGV8\_CANLF | IL17RE | *Canis lupus familiaris* |
| I3L6L2\_PIG | IL17RE | *Sus scrofa* |
| G1P064\_MYOLU | IL17RE | *Myotis lucifugus* |
| F7GGQ5\_MONDO | IL17RE | *Monodelphis domestica* |
| G1KI13\_ANOCA | IL17RE | *Anolis carolinensis* |
| F7CXC1\_XENTR | il17re | *Xenopus tropicalis* |
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|  |  |  |
| **Other** |  |  |
| C3YAT5\_BRAFL | BRAFLDRAFT\_102558 | *Branchiostoma floridae* |
| C3Z2Q8\_BRAFL | BRAFLDRAFT\_66438 | *Branchiostoma floridae* |
| K1PLG7\_CRAGI | CGI\_10021486 | *Crassostrea gigas* |