**Supplementary file 1.**

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| Species Name | Common Name | Protein | Accession Number | Database |
| *Callorhinchus milii* | Elephant Shark | ASIC1 | XP\_007884967.1 | NCBI |
| *Lampetra fluviatilis* | European River Lamprey | ASIC1 | AAY28983.1 | NCBI |
| *Latimeria chalumnae* | Coelacanth | ASIC1 | XP\_006007803.1 | NCBI |
| *Notothenia coriiceps* | Black Rock Cod | ASIC1 | XP\_010778727.1 | NCBI |
| *Oryzias latipes* | Japanese Medaka | ASIC1 | XP\_004068864.1 | NCBI |
| *Ictalurus punctatus* | Catfish | ASIC1# | XP\_017320908.1 | NCBI |
| *Bos taurus* | Cow | ENaC  | NP\_777023.1 | NCBI |
| *Callorhinchus milii* | Elephant Shark | ENaC  | JW872093.1\* | NCBI |
| *Chrysemys picta bellii* | Western Painted Turtle | ENaC  | XP\_005291372.1 | NCBI |
| *Gallus gallus* | Chicken | ENaC  | NP\_990476.2 | NCBI |
| *Homo sapiens* | Human | ENaC  | NP\_001029.1 | NCBI |
| *Hynobius nigrescens* | Sendai Salamander | ENaC  | BAI66492.2 | NCBI |
| *Latimeria chalumnae* | Coelacanth | ENaC  | H3AJ42 | UniProt |
| *Lethenteron camtschaticum* | Japanese Lamprey | ENaC  | APJL01005293.1\* | NCBI |
| *Neoceratodus forsteri* | Australian Lungfish | ENaC  | H1AFJ5.1 | NCBI |
| *Petromyzon marinus* | Sea Lamprey | ENaC  | S4RTA3 | UniProt |
| *Protopterus annectens* | West African Lungfish | ENaC  | BAO27802.1 | NCBI |
| *Xenopus laevis* | African Clawed Frog | ENaC  | NP\_001081392.1 | NCBI |
| *Erpetoichthys calabaricus* | Ropefish | ENaC α | XP\_028666006.1 | NCBI |
| *Bos taurus* | Cow | ENaC  | NP\_001091544.1 | NCBI |
| *Callorhinchus milii* | Elephant Shark | ENaC  | XP\_007903981.1 | NCBI |
| *Chrysemys picta bellii* | Western Painted Turtle | ENaC  | XP\_005288958.2 | NCBI |
| *Gallus gallus* | Chicken | ENaC  | XP\_015149982.1 | NCBI |
| *Homo sapiens* | Human | ENaC  | NP\_000327.2 | NCBI |
| *Latimeria chalumnae* | Coelacanth | ENaC  | H3AVV2 | UniProt |
| *Lethenteron camtschaticum* | Japanese Lamprey | ENaC  | APJL01036227.1\* | NCBI |
| *Neoceratodus forsteri* | Australian Lungfish | ENaC  | H1AFJ6.1 | NCBI |
| *Petromyzon marinus* | Sea Lamprey | ENaC  | S4RY81 | UniProt |
| *Protopterus annectens* | West African Lungfish | ENaC  | BAO27803.1 | NCBI |
| *Xenopus laevis* | African Clawed Frog | ENaC  | P51169 | NCBI |
| *Erpetoichthys calabaricus* | Ropefish | ENaC β | XP\_028670289.1 | NCBI |

**Supplementary file 1** (continued)

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| Species Name | Common Name | Protein | Accession Number | Database |
| *Bos taurus* | Cow | ENaC  | XP\_005217258.1 | NCBI |
| *Chrysemys picta bellii* | Western Painted Turtle | ENaC  | XP\_005293087.1 | NCBI |
| *Gallus gallus* | Chicken | ENaC  | XP\_004947475.1 | NCBI |
| *Homo sapiens* | Human | ENaC  | AAI25075.1 | NCBI |
| *Latimeria chalumnae* | Coelacanth | ENaC  | H3BHF6 | UniProt |
| *Xenopus laevis* | African Clawed Frog | ENaC  | NP\_001082645.1 | NCBI |
| *Bos taurus* | Cow | ENaC  | NP\_001180103.1 | NCBI |
| *Callorhinchus milii* | Elephant Shark | ENaC  | XP\_007903982.1 | NCBI |
| *Chrysemys picta bellii* | Western Painted Turtle | ENaC  | XP\_008163042.1 | NCBI |
| *Gallus gallus* | Chicken | ENaC  | XP\_015149986.1 | NCBI |
| *Homo sapiens* | Human | ENaC  | NP\_001030.2 | NCBI |
| *Latimeria chalumnae* | Coelacanth | ENaC  | H3AU95 | UniProt |
| *Lethenteron camtschaticum* | Japanese Lamprey | ENaC  | APJL01036229.1\* | NCBI |
| *Neoceratodus forsteri* | Australian Lungfish | ENaC  | H1AFJ7.1 | NCBI |
| *Petromyzon marinus* | Sea Lamprey | ENaC  | S4RK61 | UniProt |
| *Protopterus annectens* | West African Lungfish | ENaC  | BAO27804.1 | NCBI |
| *Xenopus laevis* | African Clawed Frog | ENaC  | NP\_001079123.1 | NCBI |
| *Erpetoichthys calabaricus* | Ropefish | ENaC γ | XP\_028670288.1 | NCBI |
| *Lepisosteus oculatus* | Spotted Gar | -like | XP\_006632023.1 | NCBI |
| *Scleropages formosus* | Asian Arowana | γ-like | XP\_018588349.1 | NCBI |
| *Branchiostoma belcheri* | Lancelet | γ-like | XP\_019619098.1 | NCBI |
| *Branchiostoma belcheri* | Lancelet | α-like | XP\_019623744.1 | NCBI |