|  |  |  |  |
| --- | --- | --- | --- |
| **Sidekick 1 sequences** | | **Sidekick 2 sequences** | |
| **Accession** | **Species** | **Accession** | **Species** |
| XP\_686686.3 | Danio rerio | XP\_006029532.1 | Alligator sinensis |
| XP\_016122898.1 | Sinocyclocheilus grahami | XP\_004860637.1 | Heterocephalus glaber |
| XP\_006637301.2 | Lepisosteus oculatus | XP\_008165868.1 | Chrysemys picta bellii |
| XP\_012671777.1 | Clupea harengus | XP\_015090733.1 | Vicugna pacos |
| XP\_014801724.1 | Calidris pugnax | XP\_004749092.1 | Mustela putorius furo |
| XP\_010073520.1 | Pterocles gutturalis | XP\_011585064.1 | Aquila chrysaetos canadensis |
| XP\_010390686.1 | Corvus cornix cornix | XP\_009465259.1 | Nipponia nippon |
| XP\_011577492.1 | Aquila chrysaetos canadensis | XP\_007482760.1 | Monodelphis domestica |
| XP\_009318308.1 | Pygoscelis adeliae | XP\_015735584.1 | Coturnix japonica |
| XP\_010568603.1 | Haliaeetus leucocephalus | XP\_006970501.1 | Peromyscus maniculatus bairdii |
| XP\_008496763.1 | Calypte anna | XP\_013154663.1 | Falco peregrinus |
| KFU86669.1 | Chaetura pelagica | XP\_005350737.1 | Microtus ochrogaster |
| XP\_014466304.1 | Alligator mississippiensis | XP\_003768600.1 | Sarcophilus harrisii |
| KFQ99860.1 | Nipponia nippon | NP\_766388.2 | Mus musculus |
| KFO91422.1 | Buceros rhinoceros silvestris | XP\_010719784.1 | Meleagris gallopavo |
| XP\_014436664.1 | Pelodiscus sinensis | XP\_011287640.1 | Felis catus |
| XP\_007065402.1 | Chelonia mydas | XP\_006247755.1 | Rattus norvegicus |
| XP\_015732346.1 | Coturnix japonica | XP\_013364113.1 | Chinchilla lanigera |
| EOB00921.1 | Anas platyrhynchos | XP\_005597275.1 | Equus caballus |
| KFP83217.1 | Apaloderma vittatum | XP\_014644694.1 | Ceratotherium simum simum |
| XP\_009090333.1 | Serinus canaria | XP\_011965263.1 | Ovis aries musimon |
| XP\_002190771.2 | Taeniopygia guttata | XP\_014695185.1 | Equus asinus |
| XP\_014122801.1 | Zonotrichia albicollis | AAN15076.1 | Gallus gallus |
| XP\_005435700.1 | Falco cherrug | XP\_012517683.1 | Propithecus coquereli |
| XP\_005420504.2 | Geospiza fortis | XP\_010340778.1 | Saimiri boliviensis boliviensis |
| XP\_005145354.2 | Melopsittacus undulatus | XP\_006886456.1 | Elephantulus edwardii |
| XP\_009562886.1 | Cuculus canorus | XP\_015666575.1 | Protobothrops mucrosquamatus |
| XP\_005054485.1 | Ficedula albicollis | XP\_004275482.1 | Orcinus orca |
| XP\_015498549.1 | Parus major | XP\_007185669.1 | Balaenoptera acutorostrata scammoni |
| KFM12390.1 | Aptenodytes forsteri | XP\_511658.3 | Pan troglodytes |
| XP\_014725986.1 | Sturnus vulgaris | XP\_003813403.1 | Pan paniscus |
| XP\_007498480.1 | Monodelphis domestica | XP\_008010104.1 | Chlorocebus sabaeus |
| XP\_014108198.1 | Pseudopodoces humilis | XP\_007454451.1 | Lipotes vexillifer |
| NP\_989436.2 | Gallus gallus | XP\_011717998.1 | Macaca nemestrina |
| XP\_005229039.1 | Falco peregrinus | XP\_013002520.1 | Cavia porcellus |
| KFR12275.1 | Opisthocomus hoazin | XP\_004041123.1 | Gorilla gorilla gorilla |
| KFZ56915.1 | Caprimulgus carolinensis | XP\_014975718.1 | Macaca mulatta |
| KFQ05823.1 | Leptosomus discolor | XP\_010719785.1 | Meleagris gallopavo |
| XP\_004386013.1 | Trichechus manatus latirostris | NP\_001138424.1 | Homo sapiens |
| XP\_006143656.1 | Tupaia chinensis | XP\_005584885.1 | Macaca fascicularis |
| KFP21781.1 | Egretta garzetta | XP\_015135354.1 | Gallus gallus |
| XP\_005621203.1 | Canis lupus familiaris | XP\_015999084.1 | Rousettus aegyptiacus |
| KFV61434.1 | Picoides pubescens | XP\_014133117.1 | Falco cherrug |
| XP\_004394197.2 | Odobenus rosmarus divergens | XP\_012418340.1 | Odobenus rosmarus divergens |
| XP\_005397914.2 | Chinchilla lanigera | XP\_004709379.1 | Echinops telfairi |
| XP\_008017012.1 | Chlorocebus sabaeus | XP\_005530779.2 | Pseudopodoces humilis |
| XP\_003469953.1 | Cavia porcellus | XP\_008010105.1 | Chlorocebus sabaeus |
| XP\_518946.3 | Pan troglodytes | XP\_016158177.1 | Ficedula albicollis |
| NP\_689957.3 | Homo sapiens | XP\_015501623.1 | Parus major |
| XP\_004045095.1 | Gorilla gorilla gorilla | XP\_016072154.1 | Miniopterus natalensis |
| XP\_007901677.1 | Callorhinchus milii | XP\_008154494.1 | Eptesicus fuscus |
| XP\_011742520.1 | Macaca nemestrina | XP\_014129483.1 | Zonotrichia albicollis |
| XP\_012494361.1 | Propithecus coquereli | ELW68360.1 | Tupaia chinensis |
| KFV75189.1 | Struthio camelus australis | XP\_012376244.1 | Dasypus novemcinctus |
| XP\_007941083.1 | Orycteropus afer afer | XP\_003495730.1 | Cricetulus griseus |
| XP\_008017011.1 | Chlorocebus sabaeus | KFO30522.1 | Fukomys damarensis |
| XP\_011812394.1 | Colobus angolensis palliatus | XP\_007641438.1 | Cricetulus griseus |
| XP\_011832325.1 | Mandrillus leucophaeus | XP\_008054805.1 | Tarsius syrichta |
| EHH17116.1 | Macaca mulatta | XP\_006754687.1 | Myotis davidii |
| EHH51984.1 | Macaca fascicularis | XP\_015445099.1 | Pteropus alecto |
| XP\_003795492.1 | Otolemur garnettii | XP\_012588441.1 | Condylura cristata |
| NP\_808547.3 | Mus musculus |  |  |
| XP\_004671382.2 | Jaculus jaculus |  |  |
| XP\_008696690.1 | Ursus maritimus |  |  |
| XP\_006859935.1 | Chrysochloris asiatica |  |  |
| XP\_006889806.1 | Elephantulus edwardii |  |  |
| XP\_014962337.1 | Ovis aries musimon |  |  |
| XP\_007174719.1 | Balaenoptera acutorostrata scammoni |  |  |

### Figure 4­—source data 1. Protein amino acid sequences used to generate Sdk sequence logos