

Cu3 →

Chicken SQS-PAVRSGS-TYSLSSRVNVSGTDWREGKSYSCRVRHPATNTVVEDHVKGCP-DGAQS 346
Duck TMTRPQREAGSKTYMATSQTNVSREDWKAGKAFTCRVKHPATGGTAQGHARFCPGSGAQ
Anole YTEPPRQDAVGYTFSTTSSANISQADWLEGTIYTKVTHAGSQTMRARAKKCEDDS-TS
Gecko HTENPRKDATGDTFSTTSTANVTQIDWKEGKTYTCQVIHQG--HKVEKHATKCRGDSGNC
Axolotl QTSPQKDGQG-TFSTTSQINVTKSDWASGDKYTCCKVEHPATSSRAEDTIHNCADSQ---
Newt YTSPSIKREG-TFSTTSQVNIKSDWILGERYTCKVDHPATNTSLHDSIRNCPESP---
Frog ASVPTPSKTEDGTYSSSQLRILKGMWNKGTQYSCIVTHTSSNTTTIANISQTEQC---
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AB helix

Chicken CSP-IQLYAIPSPGELYISDAKLRCLVVNLPDSSLSVTWTREKSGNLRPDPMLVQE 405
Duck CSP-IQIFVPPSPGSLYIRQDAKVHCLVVNLPDASLSISWTREKSGALRPDPMLVTEH
Anole QCDGIYVYLKSPNDLYLNRDPKVCVGNLESEEGLKVSWSRDKKASLDPKPMSVSEE
Gecko TANGIKVSI LPPTPADLYMNGEPRLICVVTGLESNVGMKVRWSKEKPGTLNPEPELEPAQD
Axolotl TPYQPKVFLIAPKARDLYIANQPVVICKITKMENSDSL SVTWKRREGPEEA AVISEQYID
Newt SGVQLKVSMI PPKAKDLYVTQPSIVCQVTKMESADGLSITWKQEDGSP LVGLPHETEVL
Frog -HDNLQVYPLTPTFHDL YFSR NAKVTCLVSSMKT IENFDIS WEREKAGNLEFVTEDPVLH
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Cu4 →

Chicken FNGTYSASSAVPVSTQDWLSGERFTCTVQHEELPLPLSKSVYRNT-GPTTPPLIYPFAPR 464
Duck FNGTFTASSSLAISTQDWLAGERFTCTVQHEDLPVPLGKSI AKHA-GKVTAPYIFTFPPH
Anole LNGTYTVVSALPIL TREWDSEETFTCTVEYPGVPTPIVKKITK LK-GKVTTPSVYLFRPH
Gecko SDGTFTLKSP LIISKQDWLAGEIYTCTLEHSSGIAPYSKTI AKKT-GKRTQAQVYLFRPH
Axolotl SDGTF TAMS YLNITKNEWERGDEFTCKVKHFDL PFP LRSRSVSKPT-GRSFAPTMYVFAPH
Newt PDGTLGADSTLTITTD AWKQGSFAFCKVEHPDLSSPVTRTIRKPK-EREIGPSMYLFPFH
Frog DNGTYSVASILSVCAEDWESGDKFSCTVRSQDLPSPVKKTIFKQNEGTPKAPDVYLLPPS
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CC' loop

Chicken PEELSLS---RVTL SCLVRGFRPRDIEIRWLRDRAVPATEFVTTAVLPEERTANGAGGD 521
Duck AEELSLSA---EVTLTCLVRGFQPEHVEVQWLRNENSVPAAEFVTT PPLKE-----PNGD
Anole REELIFQSHS QLTLTCLVKLNLPKDVSVQWLKDNNA LTEDNHITTPVLKD-----SI
Gecko NEELKSR-DPNV SITCLVQGFNPEDISIKWLENINAVAGNNHVTTQVQMD-----SD
Axolotl EMELANY--DFVSLTCLVRSFSPDDIYIQWKQKSVI PSDKYVSM EPRQEAG-----TAG
Newt QHELDQH--ELVSLTCLVKGFSPDDIYVQWKRNTVLPDNSSRN TALVLESG-----TNG
Frog AQELIQ--EMVTLT C FVTG FNPKEIFIQW MQGVSISEDKFINTVPMKS-----DG
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FG loop

Chicken GDTFFVYSKMSVETAKWNGGTVFACMAVHEALPMRFSQRTLQKQAGK----- 568
Duck G-TFFLYSKMTVPKASWQGGVSYACMVVHEGLPMRFTQRPLQKTPGK-----
Anole EDSYFVYSKLLISRADWDRGSSYTCMVVHEGLAMKFTQRTVEKSQGKK-----
Gecko QDSFFVYSKLTVPKANWNDGHSFTCHVVHEGFMSMYTQRTIEKTQGKK-----
Axolotl LGTYFSYMLTIQKSDWDKRETFTCVAAHSAVPKNLMTRRIQKPLGK-----
Newt PDTYFMYSLLTISKSNWENRDTYSCIAFHSALPKNQMQRSIQKARGN-----
Frog EQTYFIYSKLAIPA AKWNQGDVFTCVVGHEALPLYITQQSIDKSSGKSSLVNVLVMS
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Supplementary Fig. 1. Amino acid sequences of epsilon (IgY) heavy chain sequences from birds, reptiles and amphibians, aligned using ClustalW [1]. Residues in chicken IgY-Fc involved in binding to monocytes and/or CHIR-AB1, and conserved residues in other species, are highlighted. Exact matches are coloured red, similar residues are coloured yellow.

Reference

[1] Chenna R, Sugawara H, Koike T, Lopez R, Gibson TJ, Higgins DG, Thompson JD. Multiple sequence alignment with the Clustal series of programs. *Nucleic Acids Res* 2003; 31:3497-3500.