

Reference sequence (1): PuDHAD  
Identities normalised by aligned length.  
Colored by: identity

|                 | cov    | pid    | 1  | 80  |
|-----------------|--------|--------|--|-----|
| 1 PuDHAD        | 100.0% | 100.0% | -----MS-DKEKPVRRSQWFGRLDR--D-FIYRSWKN  |     |
| 2 FtDHAD        | 95.0%  | 33.6%  | -----MSEPLNRRSRLLITQGIERSP-----NRAMLRA   |     |
| 3 SsDHAD        | 95.0%  | 33.5%  | -----MPAKLNSPSRYHGIYNAP-----HRAFLRS  |     |
| 4 SaDHAD        | 95.5%  | 33.5%  | -----MPESKLNSPLRYHGIYNAP-----HRAFLRS   |     |
| 5 CnN1DHAD      | 94.6%  | 34.1%  | -----MAFNKRSQNTQGVARSPP-----NRSMYYA  |     |
| 6 TvDHAD        | 95.1%  | 32.5%  | -----MAENMRSRIITEGVORTP-----NRAMLRA  |     |
| 7 5j84-RlArDHT  | 100.0% | 63.6%  | -----MKKKAEPWPKLRSQENYGGTSR--DVIYHGWLKN  |     |
| 8 6ovt-MtDHAD   | 95.1%  | 34.4%  | -----MPQTTDEAASVSTVADIKPRSRDVTDLKAKA--ARGLMRA  |     |
| 9 5ze4-AtDHAD   | 95.7%  | 30.2%  | MQATIFSPRATLPCKPLLP SHNVNSRRPSIISCSAQSVTADPSPPITDNLKLNKYSRRITEPKSQGG----SQAILHG      |     |
| 10 Soyn-CcXyDHT | 99.7%  | 37.9%  | -----MRSALSNRTPRRFRSRDWFNDPDHIDMTALYLERFMNY  |     |
| consensus/100%  |        |        | .....S..hht...p.....pthh..   |     |
| consensus/90%   |        |        | .....phps..hhtsh.p.....cuhhps  |     |
| consensus/80%   |        |        | .....phpsp.hhpshtp.s.....truhh+s   |     |
| consensus/70%   |        |        | .....shpRSpthhpplp+ss.....pruh+u   |     |
|                 | cov    | pid    | 81   | 160 |
| 1 PuDHAD        | 100.0% | 100.0% | RGIPHDQFDGRPVIGICNTFSELTFCNSHFRTLAEOVKIGVWESGGFPLEFPVMSLGETMLR-TAML-:-FRNLAS-D       |     |
| 2 FtDHAD        | 95.0%  | 33.6%  | VGFTDAD-FDKPIVGVANGHSTMNPCNAGIQPLADRAVAALREAGAMPQTFCVPTVTDGISMGTGEMKYSLSVSRREVIADS   |     |
| 3 SsDHAD        | 95.0%  | 33.5%  | VGLTDEE-IGKPLVALATAKSEAGPCNFHTLALARVAKEGTKEAGLSPLAFPTMVNDNIGMGSEGMYSLSVSRDIADDM      |     |
| 4 SaDHAD        | 95.5%  | 33.5%  | VGLTDGE-INKPLVAVATAWSEAGPCNFHTLSLAHVAKKEGKEGGLTPLAFPTIVVNDNIGMGTEGMYSLSVSRDIADDM     |     |
| 5 CnN1DHAD      | 94.6%  | 34.1%  | LGYQKED-FDKPMVGIANGHSTITPCNAGLQRLADAIDAIAKASGANPQVFGTPTISDGSMTGEMKYSLSISREVIADC      |     |
| 6 TvDHAD        | 95.1%  | 32.5%  | VGFGDED-FNKPIVGVASAHSTITPCNMGIAALASRAEAGTIRAAGGMPLEGTTIVSDGISMGTGEMKYSLSVSRREVIADS   |     |
| 7 5j84-RlArDHT  | 100.0% | 63.6%  | QGYPHDLFDGRPVIGILNTWSDMTPCNGHLRELAEKVKAGVWEAGGFPLEVPVFSASENTFR-TAMM-----YRNLAALA     |     |
| 8 6ovt-MtDHAD   | 95.1%  | 34.4%  | VGMDDED-FAKPOIGVASSWNEITPCNLSLDRLANAVKEGVFSAGGYPLEFGTISVSDGISMGHGEMHFSLSVSRREVIADS   |     |
| 9 5ze4-AtDHAD   | 95.7%  | 30.2%  | VGLSDDD-LLKPOIGISSVWYEGNTCNMHLKLSEAVKEGVENAGMVGFRNTIGVSDAISMTGRCMFCSLQSRDIADDM       |     |
| 10 Soyn-CcXyDHT | 99.7%  | 37.9%  | GITPEELRSKPIIGIAQTGSDISPCNRIHLDLVQRVRDGIADAGGIMEFPVHPITFCNRR-TAAL-----DRNLSYLG       |     |
| consensus/100%  |        |        | .hh.ct....+P.lul.psh.phssCN..h..Lsp.s..uh.tugh.s..hss.sh.-h.hspthh.....Rp1....       |     |
| consensus/90%   |        |        | hgnsct...+P.lulssasphsPCNnth.tluphshtuhhtugh.P..fss.sls-sh.hsothh.....Rp1hu..        |     |
| consensus/80%   |        |        | hgns-c-p..skphlglussaSphsPCNnth.tlAptsctclhpughhp.tfsshsls-shthsittuM.....SRp1hA.s   |     |
| consensus/70%   |        |        | lgns---.hskpilglissaS-hsPCNnthhplAacts+tlclpAGuhntfsshslsdshuMGTGChpaS..SR-LIADS     |     |
|                 | cov    | pid    | 161  | 240 |
| 1 PuDHAD        | 100.0% | 100.0% | VEESRGNPIDGVVLLMGCDKTT-PSLMMGAASCDLPTIGVSGGPMLSCKFR-----GRELGSSTDVWKMSEEVRAQGSQ      |     |
| 2 FtDHAD        | 95.0%  | 33.6%  | IETAVSSQCMQDGVLAIGGCDKNMPGAMIAMLRMNVPAIFCYAGTIKPGCWK-----GQALTI-VSSFEAVGAFQAGKMSK    |     |
| 3 SsDHAD        | 95.0%  | 33.5%  | VEAQFNAHAFDGLVIGGCDKTTPGILMAMARLNVPSIYIYGSAEPGYFM-----GKRLTI-EDVHEAIGAYLAKRITE       |     |
| 4 SaDHAD        | 95.5%  | 33.5%  | VEAQFNAHAFDALIGIGGCDKTTPGILMAMARLNVPSIYIYGSAEPGYFL-----GRLRTI-EDVHEAIGAFIAGKIDE      |     |
| 5 CnN1DHAD      | 94.6%  | 34.1%  | IETAAQGMQMDGVVIGGCDKNMPGGMIALARTNVPGIYVYGGTIKPGNWK-----GKDLTI-VSSFEAVGEFTAGRMSQ      |     |
| 6 TvDHAD        | 95.1%  | 32.5%  | IETVCNAQSMQDGVLAIGGCDKNMPGAMIAMARMNIPAIYVYGGTIKPGHWQ-----GQDLTV-VSAFEAVGQFSAGKMD     |     |
| 7 5j84-RlArDHT  | 100.0% | 63.6%  | VEEARRGQMDGVVLLVIGGCDKTT-PSLMMGAASCDLPSIVTGGPMLNGYFR-----GERVGS-THLWKFSEVWKGEMTQ     |     |
| 8 6ovt-MtDHAD   | 95.1%  | 34.4%  | VEVVMQAERLDGSVLLAGCDKSLPGMLMAARLDLAADVFLYAGSILPGRAKLSGDGERVDTTI-IDAFEAVGACSRGLMRSR   |     |
| 9 5ze4-AtDHAD   | 95.7%  | 30.2%  | IETVMSAQWYDGNISIPGCDKNMPTIAMGRNLNRPGLIMVYGGTIKPGHFQ-----DKTYDI-VSAFQSYGFEVSGSISD     |     |
| 10 Soyn-CcXyDHT | 99.7%  | 37.9%  | LVETLHGYEIDAIVLTTGCDKTT-PAGIMAAATTVNIPIIVL-SGGPMLDGWHE-----NELVGS-ETVIRSRRLKLAAGEITE |     |
| consensus/100%  |        |        | l...hpu..hdu.l.h.GCDKshpuhhuhhphssslhh.ugsh.sg.h.....tp.hs....ap..t.h.tt.hsp         |     |
| consensus/90%   |        |        | lEt.hpup.hdu.lhlsGCDKshpuhhuhhshslPuIh1.ugsh.sgha.....sptls...s.ac..tth.ugphsp       |     |
| consensus/80%   |        |        | lEtshpup.hdgslhlsGCDKshpuhhuhhshslPuIh1hggshhschap.....scpl.s..hssacuhtth.AGphop     |     |
| consensus/70%   |        |        | lEsshpupshdglhlhlsGCDKshpuhhuhhshslPuIh1hVGGohhchap.....Gccisl.sssacuhtthtAgchoc     |     |
|                 | cov    | pid    | 241  | 320 |
| 1 PuDHAD        | 100.0% | 100.0% | EEFFEASCMHRSHGHCMTMGASTMASMVEALGMSLPGVAAIPAVDARRNLLARSGRRIVQVVKDDLVMSKILTRQAF        |     |
| 2 FtDHAD        | 95.0%  | 33.6%  | EDFEGIEKNACPTTGACGGMYTANTMSSFEALGMSLGGSSQMACPDPEKADSVAESARVLVEAIRRDLKPRDITVRKAI      |     |
| 3 SsDHAD        | 95.0%  | 33.5%  | NELYEIEKRAHPTLTGCSGLFTANTMGSSEALGMALPGASPTATSSRRVMYVKETGKALGSLIENGKISREITFEAF        |     |
| 4 SaDHAD        | 95.5%  | 33.5%  | HELYEIEKRAHPTVTGSCGMYTANTMGSSEALGMALPGASPTATSSRRIMYVRETGKAVSRLLENGKISREILTFEAF       |     |
| 5 CnN1DHAD      | 94.6%  | 34.1%  | EDFEGVEKNACPTTGSCGMYTANTMSSFEALGMSLGGSSQMACPDPEKADSVAESARVLVEAIRRDLKPRDITVRKAI       |     |
| 6 TvDHAD        | 95.1%  | 32.5%  | ATLHAIEHHACPGAGSCGMYTANTMSSFEALGMSLGGSSQMACPDPEKADSVAESARVLVEAIRRDLKPRDITVRKAI       |     |
| 7 5j84-RlArDHT  | 100.0% | 63.6%  | AEFLAEASCMHRSRGTCNTMGASTMASMAEALGMALSGVAAIPGVDSRRKVMALTGRRIVQVVKDDLVMSKILTRQAF       |     |
| 8 6ovt-MtDHAD   | 95.1%  | 34.4%  | ADVDAIERAICPGEGACGGMYTANTMASAAEALGMSLPGSAAPATDRRRDGFARRSGQAVVELLRGITARDILTKEAF       |     |
| 9 5ze4-AtDHAD   | 95.7%  | 30.2%  | EORKTVLHHSCPGAGCGMYTANTMASAAEALGMSLPGSSSIPAEPLKLDCEKRLAGLYLELLKVDLKPRDITVRKAI        |     |
| 10 Soyn-CcXyDHT | 99.7%  | 37.9%  | EEFIDRAASSAPSAHCNTMGASTMNAVAEALGLSLTGCAAIAPAPYRERGQMAKYTGORIVDLAYDDVKPDLILTQAF       |     |
| consensus/100%  |        |        | tph.th.tt.t.s.GtC.shhTASTmsu..EahGuL.hsut.ss....+...s..suphl.phh..slh..cIht.puh      |     |
| consensus/90%   |        |        | tph.thhttp.p.s.GtCsshTASTmsu..EahGuL.hsus.ss.s.+...st.suphlsphlcpsslp-Ilthpuh        |     |
| consensus/80%   |        |        | t-h.thEpphpstGssshTASTmsuShhEALGML.hsus.susstc+h.st.oG+hllhplcpsslp-Ilthpuh          |     |
| consensus/70%   |        |        | p-hhtle+puspGssCuGhTANTmsShhEALGMSLsgSuhsAsDc+s..sptog+hllvchl+pslKSRDILT+cIh        |     |
|                 | cov    | pid    | 321  | 400 |
| 1 PuDHAD        | 100.0% | 100.0% | ENAIRVNAAGGSTNAVIHLLAIAGRIGVLTLDADWDALGHKLPCLVDQPSGTHLMEDFYAGGVPAPVIRELGD--VIA       |     |
| 2 FtDHAD        | 95.0%  | 33.6%  | ENAIALIMATGGSTNAVLHLYLAIAHAAQVPFAIDDEFAIRRRVPVLCDLKPSSGKYVATDHRAGGVQVLKMLKAGLLH      |     |
| 3 SsDHAD        | 95.0%  | 33.5%  | ENAITTLMAAGGSTNAVLHLLAIAYEAGVKLTDDFNRIKSRTPYIASMKPGGDYVMAOLDVEGGVPVVLKMLKAGLLH       |     |
| 4 SaDHAD        | 95.5%  | 33.5%  | ENAIALVMAAGGSTNAVLHLLAIAYEAGVKLTDDFNRIKSRTPYIGSLKPGGDYVMAOLDVEGGVPVLMKMLKAGLLN       |     |
| 5 CnN1DHAD      | 94.6%  | 34.1%  | ENAIALIMATGGSTNAVLHLYLAIAHAAQVEVITDDFERIRRKVPVICNLKPSGQYVATDLHKAGGIPQVMKILLKAGMLH    |     |
| 6 TvDHAD        | 95.1%  | 32.5%  | ENATSVIMAVGGSTNAVLHLYLAIAHAAQVEVITDDFERIRRKVPVICNLKPSGQYVATDLHKAGGIPQVMKILLKAGMLH    |     |
| 7 5j84-RlArDHT  | 100.0% | 63.6%  | ENAIRVNAAGGSTNAVIHLLAIAGRIGVLTLDADWDRCGRDVPVTLNMPSGKYLMEEFYAGGLPVVLKRLGEAGLLH        |     |
| 8 6ovt-MtDHAD   | 95.1%  | 34.4%  | ENAIALVMAAGGSTNAVLHLLAIHAEANVALSQDFSRISGVPPLADVKPFGRRVMSVDVHTGGVPVVMKALLDAGLLH       |     |
| 9 5ze4-AtDHAD   | 95.7%  | 30.2%  | RNAMVSVMAAGGSTNAVLHLYLAIAHAAQVEVITDDFQKVSDAVPFLADLKPSSGKYVMEIHKIGGTPAVLRYLLELGLMD    |     |
| 10 Soyn-CcXyDHT | 99.7%  | 37.9%  | ENAIALVMAAGGSTNAVPHIVAMARHAGVEITADDARA-AYDIPLVNMQPAGKYLGFRHRRAGGAPAVLKLQQRGLH        |     |
| consensus/100%  |        |        | qNah...hahggSTNA..Hhlahhtht1.hshthtpt.t.thphlssh.p.Gpalhtch..hggHp.Vhh.Lhp..hht      |     |
| consensus/90%   |        |        | ENAlth.hahggSTNAVHhLAIAhtst1.holsDapthtptphlsshpuGpalht-h..hggHp.Vh+.Lhp.Ghlp        |     |
| consensus/80%   |        |        | ENAlshlhahggSTNAVHhLAIAtpstvtloDDaptitpclphlsslpugcylhtnccsGGlp.Vh+hllctgllc         |     |

consensus/70%

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