## Draft Sequence of Human Fer1L4, assembled based on predicted chimpanzee sequence.

**Top(red):** predicted sequence of chimpanzee (Pan troglodytes) Fer1L4 (XP\_525311)

**Bottom(black):** human sequence assembled from predicted partial sequence of Fer1L4 (CAI42838) and translated human ESTs.

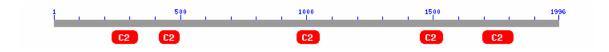
The beginning of the translated region is unclear. None of the human ESTs include the initial five amino acids of XP\_525311 in the same reading frame as the subsequent amino acids. It is possible that the methionine at position 204 shown in pink is the beginning of the translated region.

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1 maltvrvqrl tgltgthdrq vkltfrgftq ktrkihcgpe adigelfrwp hygaplagec
        RVORL TGLTGTHDRQ VKLTFRGFTQ KTRKIHCGPE ADIGELFRWP HYGAPLAGEC
 61 lsvqvvncsr vfsprplgtl vislqqlqna ghlvlrealv denlrvspie veldlkyqpp
   LSVQVVNCSR VFSPRPLGTL VISLQQLQNA GHLVLREALV DENLQVSPIQ VELDLKYQPP
121 egatgawsee dfgapiqdsf eliipnmgfq elepgeagle rravalgrrl arslgqqdne
    EGATGAWSEE DFGAPIODSF ELIIPNVGFQ ELEPGEAQLE RRAVALGRRL ARSLGQQDDE
181 eneleleleg dlddepdvel sgymfsplks raralahgdp fgysragdfg vgytyleagk
   ENELELELQ DLDDEPDVEL SGVMFSPLKS RARALAHGDP FQVSRAQDFQ VGVTVLEAQK
241 lvgvninpyv avgvgggrrv tatgrgtscp fyneyflfef hdtrlhlgdl lleitafhsg
   LVGVNINPYV AVQVGGQRRV TATQRGTSCP FYNEYFLFEF HDTRLRLQDL LLEITAFHSQ
301 tlpfmatrig tfrmdlgiil dqpdgqfyqr waplhdprdt ragtkgfvkv tlsvrargdl
   TLPFMATRIG TFRMDLGIIL DQPDGQFYQR WVPLHDPRDT RAGTKGFIKV TLSVRARGDL
361 pppmlppapg hcsdieknll lprgvpaerp warlrvrlyr aeglpalrpg llgslaralh
   PPPMLPPAPG HCSDIEKNLL LPRGVPAERP WARLRVRLYR AEGLPALRLG LLGSLVRALH
421 dqrvlvepyv rvsflqqeqe tsvraeaaap ewneqlsfve lfppltrslr lqlrddaplv
   DORVLVEPYV RVSFLGOEGE TSVSAEAAAP EWNEOLSFVE LFPPLTRSLR LOLRDDAPLV
481 daalathvld 1rrishpgra agfnptfgpa wvplygsppg aglrdslqgl negvgqgiwf
   DAALATHVPD LRRISHPGRA AGFNPTFGPA WVPLYGSPPG AGLRDSLQGL NEGVGQGIWF
541 rgrlllavsm qvlegraepe ppqaqqgstl srltrkkkkk arrdqtpkav pqhldaspga
   RGRLLLAVSM QVLEGRAEPE PPQAQQGSTL SRLTRKKKKK ARRDQTPKAV PQHLDASPGA
601 egpeiprame veveellplp envlapcedf llfgvlfeat midpavasqp isfeisigra
   EGPEIPRAME VEVEELLPLP ENVLAPCEDF LLFGVLFEAT MIDPTVASQP ISFEISIGRA
661 grleeglgrg sragegtega aveagpllgp rpeeekeeee pgtpagrpep mdgsgpyfcl
    GRLEEQLGRG SRAGEGTEGA AVEAQPLLGA RPEEEKEEEE LGTHAQRPEP MDGSGPYFCL
721 plrhckpcmh vwscwedhtw rlgssncvrk vaerldgglg everlgrrpg pgacaglkga
   PLCHCKPCMH VWSCWEDHTW RLQSSNCVRK VAERLDQGLQ EVERLQRKPG PGACAQLKQA
781 levlvagsrg fcrgaerrtm trpnaldrcr gkllvhslnl lakgglrllr glrrnnvgkk
    LEVLVAGSRO FCHGAERRTM TRPNALDRCR GKLLVHSLNL LAKOGLRLLR GLRRRNVOKK
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841	valakkllak VALAKKLLAK	lrflaeepqp LRFLAEEPQP				
901	kiqslmltap KIQSLMLTAP	gaapgevcak GAAPGEVCAK				
961	fsyfqlrahl FSYFQLRAHL	yqargvlaad YQARGVLAAD				
1021	ivdgrrehlq IVDGRREHLQ	eepplviinv EEPPLVIINV				
1081	gpraagelia GPWAAGELIA	afelieldys AFQLIELDYS				
1141	rvevlfwglr RVEVLFWGLR	glgrvhlfev GLGRVHLLEV				
1201	eqpylqppls EQPYLQPPLS	ilvierrafg ILVIERRAFG				
1261	gpqgqksldp GPQGQKSLDP	flaeagisrq FLAEAGISRQ				
1321	lqelqgqhnl					
	LQELQGQHNF	DEDEMDDPGD	SDGVNLISML	GEIQDQGEAE	VKGTVSPKKA	VATLKIYNRS
1381	leeefnhfed		qggqdgggee	egsghlvgkf	kgsfliypes	eavsfsepqi
	leeefnhfed LEEEFNHFED srgipqnrpi	wlnvfplsrg WLNVFPLYRG	qggqdgggee QGGQDGGGEE atnlapadpn	egsghlvgkf EGSGHLVGKF gkadpyvvvs	kgsfliypes KGSFLIYPES agrerqdtke	eavsfsepqi EAVLFSEPQI ryipkqlnpi
1441	leeefnhfed LEEEFNHFED srgipqnrpi SRGIPQNRPI fgeilelsis	wlnvfplsrg WLNVFPLYRG kllvrvyivk KLLVRVYVVK	qgqdgggee QGGQDGGEE atnlapadpn ATNLAPADPN vfdhdlvgsd	egsghlvgkf EGSGHLVGKF gkadpyvvvs GKADPYVVVS	kgsfliypes KGSFLIYPES agrerqdtke AGRERQDTKE enrfyshhra	eavsfsepqi EAVLFSEPQI ryipkqlnpi RYIPKQLNPI ncglasqyev
1441 1501	leeefnhfed LEEEFNHFED srgipqnrpi SRGIPQNRPI fgeilelsis FGEILELSIS	wlnvfplsrg WLNVFPLYRG kllvrvyivk KLLVRVYVVK lpaeteltva LPAETELTVA	qggqdggee QGGQDGGEE atnlapadpn ATNLAPADPN vfdhdlvgsd VFDHDLVGSD qrcglpapey	egsghlvgkf EGSGHLVGKF gkadpyvvvs GKADPYVVVS dligethidl DLIGETHIDL ragavkvgsk	kgsfliypes KGSFLIYPES agrerqdtke AGRERQDTKE enrfyshhra ENRFYSHHRA	eavsfsepqi EAVLFSEPQI ryipkqlnpi RYIPKQLNPI ncglasqyev NCGLASQYEV
1441 1501 1561	leeefnhfed LEEEFNHFED srgipqnrpi SRGIPQNRPI fgeilelsis FGEILELSIS dgynawrdaf DGYNAWRDAF tvasgdpeea	wlnvfplsrg WLNVFPLYRG kllvrvyivk KLLVRVYVVK lpaeteltva LPAETELTVA rpsqilaglc WPSQILAGLC	qgqqdggee QGGQDGGEE atnlapadpn ATNLAPADPN vfdhdlvgsd VFDHDLVGSD qrcglpapey QRCGLPAPEY empgfgiqlv	egsghlvgkf EGSGHLVGKF gkadpyvvvs GKADPYVVVS dligethidl DLIGETHIDL ragavkvgsk RAGAVKVGSK	kgsfliypes KGSFLIYPES agrerqdtke AGRERQDTKE enrfyshhra ENRFYSHHRA vfltppetlp VFLTPPETLP hphspgllqg	eavsfsepqi EAVLFSEPQI  ryipkqlnpi RYIPKQLNPI  ncglasqyev NCGLASQYEV  pgispflssp PGISPFLSSP  slhmwidifp
1441 1501 1561 1621	leeefnhfed LEEEFNHFED srgipqnrpi SRGIPQNRPI fgeilelsis FGEILELSIS dgynawrdaf DGYNAWRDAF tvasgdpeea TVASGDPEEA qdvpapppvd	wlnvfplsrg WLNVFPLYRG kllvrvyivk KLLVRVYVVK lpaeteltva LPAETELTVA rpsqilaglc WPSQILAGLC qallvlrrwq QALLVLRRWQ	qgqqdggee QGGQDGGEE atnlapadpn ATNLAPADPN vfdhdlvgsd VFDHDLVGSD qrcglpapey QRCGLPAPEY empgfgiqlv EMPGFGIQLV	egsghlvgkf EGSGHLVGKF  gkadpyvvvs GKADPYVVVS  dligethidl DLIGETHIDL  ragavkvgsk RAGAVKVGSK  pehvetrply PEHVETRPLY  vvlddenplt	kgsfliypes KGSFLIYPES agrerqdtke AGRERQDTKE enrfyshhra ENRFYSHHRA vfltppetlp VFLTPPETLP hphspgllqg HPHSPGLLQG gemssdiyvk	eavsfsepqi EAVLFSEPQI  ryipkqlnpi RYIPKQLNPI  ncglasqyev NCGLASQYEV  pgispflssp PGISPFLSSP  slhmwidifp SLHMWIDIFP  swvkglehdk
1441 1501 1561 1621 1681	leeefnhfed LEEEFNHFED srgipqnrpi SRGIPQNRPI fgeilelsis FGEILELSIS dgynawrdaf DGYNAWRDAF tvasgdpeea TVASGDPEEA qdvpapppvd QDVPAPPPVD qetdvhfnsl	wlnvfplsrg WLNVFPLYRG kllvrvyivk KLLVRVYVVK lpaeteltva LPAETELTVA rpsqilaglc WPSQILAGLC qallvlrrwq QALLVLRRWQ ikprqpisye IKPRQPISYE	qgqqdggee QGGQDGGEE atnlapadpn ATNLAPADPN vfdhdlvgsd VFDHDLVGSD qrcglpapey QRCGLPAPEY empgfgiqlv EMPGFGIQLV lrvviwnted LRVVIWNTED	egsghlvgkf EGSGHLVGKF  gkadpyvvvs GKADPYVVVS  dligethidl DLIGETHIDL  ragavkvgsk RAGAVKVGSK  pehvetrply PEHVETRPLY  vvlddenplt VVLDDENPLT  revsvrrrsg	kgsfliypes KGSFLIYPES agrerqdtke AGRERQDTKE enrfyshhra ENRFYSHHRA vfltppetlp VFLTPPETLP hphspgllqg HPHSPGLLQG gemssdiyvk GEMSSDIYVK pfaleeaefr	eavsfsepqi EAVLFSEPQI  ryipkqlnpi RYIPKQLNPI  ncglasqyev NCGLASQYEV  pgispflssp PGISPFLSSP  slhmwidifp SLHMWIDIFP  swvkglehdk SWVKGLEHDK  qpavlvlqvw

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1861 lkeaedvere gkveaefell tveeaekrpv gkgrkqpepl ekpgdrpkts fnwfvnplkt
     LKEAEDVERE
     AQEAQAGKKK RKQRRRKGRP EDLEFTDMGG NVYILT
                GKVEAEFELL TVEEAEKRPV GKGRKQPEPL EKP SRPKTS FNWFVNPLKT
1921 fvffiwrryw rilvlllllv lltvflllvf ytipggisgv ifrplhk
     FVFFIWRRYW RTLVLL LLV LLTVFLLLVF YTIPGQISQV IFRPLHK
***** human sequence
RVQRL TGLTGTHDRQ VKLTFRGFTQ KTRKIHCGPE ADIGELFRWP HYGAPLAGEC
LSVQVVNCSR VFSPRPLGTL VISLQQLQNA GHLVLREALV DENLQVSPIQ VELDLKYQPP
EGATGAWSEE DFGAPIQDSF ELIIPNVGFQ ELEPGEAQLE RRAVALGRRL ARSLGQQDDE
ENELELELEQ DLDDEPDVEL SGVMFSPLKS RARALAHGDP FQVSRAQDFQ VGVTVLEAQK
LVGVNINPYV AVQVGGQRRV TATQRGTSCP FYNEYFLFEF HDTRLRLQDL LLEITAFHSQ
TLPFMATRIG TFRMDLGIIL DQPDGQFYQR WVPLHDPRDT RAGTKGFIKV TLSVRARGDL
PPPMLPPAPG HCSDIEKNLL LPRGVPAERP WARLRVRLYR AEGLPALRLG LLGSLVRALH
DQRVLVEPYV RVSFLGQEGE TSVSAEAAAP EWNEQLSFVE LFPPLTRSLR LQLRDDAPLV
DAALATHVPD LRRISHPGRA AGFNPTFGPA WVPLYGSPPG AGLRDSLQGL NEGVGQGIWF
RGRLLLAVSM QVLEGRAEPE PPQAQQGSTL SRLTRKKKKK ARRDQTPKAV PQHLDASPGA
EGPEIPRAME VEVEELLPLP ENVLAPCEDF LLFGVLFEAT MIDPTVASQP ISFEISIGRA
GRLEEQLGRG SRAGEGTEGA AVEAQPLLGA RPEEEKEEEE LGTHAQRPEP MDGSGPYFCL
PLCHCKPCMH VWSCWEDHTW RLQSSNCVRK VAERLDQGLQ EVERLQRKPG PGACAQLKQA
LEVLVAGSRQ FCHGAERRTM TRPNALDRCR GKLLVHSLNL LAKQGLRLLR GLRRRNVQKK
VALAKKLLAK LRFLAEEPQP PLPDVLVWML SGQRRVAWAR IPAQDVLFSV VEEERGRDCG
KIQSLMLTAP GAAPGEVCAK LELFLRLGLG KQAKACTSEL PPDLLPEPSA GLPSSLHRDD
FSYFQLRAHL YQARGVLAAD DSGLSDPFAR VLISTQCQTT RVLEQTLSPL WDELLVFEQL
IVDGRREHLO EEPPLVIINV FDHNKFGPPV FLGRALAAPR VKLMEDPYOR PELOFFPLRK
GPWAAGELIA AFQLIELDYS GRLEPSVPSD VEPQDLAPLV EPHSGRLSLP PNVCPVLREF
RVEVLFWGLR GLGRVHLLEV EQPQVVLEVA GQRVESEVLA SYRESPNFTE LVRHLTVDLP
EQPYLQPPLS ILVIERRAFG HTVLVGSHIV PHMLRFTFRG HEDPPEEEGE MEETGDMMPK
GPQGQKSLDP FLAEAGISRQ LLKPPLKKLP LGGLLNQGPG LEEDIPDPEE LDWGSKYYAS
LQELQGQHNF DEDEMDDPGD SDGVNLISML GEIQDQGEAE VKGTVSPKKA VATLKIYNRS
LEEEFNHFED WLNVFPLYRG QGGQDGGGEE EGSGHLVGKF KGSFLIYPES EAVLFSEPQI
SRGIPONRPI KLLVRVYVVK ATNLAPADPN GKADPYVVVS AGRERODTKE RYIPKOLNPI
FGEILELSIS LPAETELTVA VFDHDLVGSD DLIGETHIDL ENRFYSHHRA NCGLASQYEV
DGYNAWRDAF WPSQILAGLC QRCGLPAPEY RAGAVKVGSK VFLTPPETLP PGISPFLSSP
TVASGDPEEA QALLVLRRWQ EMPGFGIQLV PEHVETRPLY HPHSPGLLQG SLHMWIDIFP
QDVPAPPPVD IKPRQPISYE LRVVIWNTED VVLDDENPLT GEMSSDIYVK SWVKGLEHDK
QETDVHFNSL TGEGNFNWRF VFRFDYLPTE REVSVWRRSG PFALEEAEFR QPAVLVLQVW
DYDRISANDF LGSLELQLPD MVRGARGPEL CSVQLARNGA GPRCNLFRCR RLRGWWPVVK
LKEAEDVERE AOEAOAGKKK RKORRRKGRP EDLEFTDMGG NVYILT
GKVEAEFELL TVEEAEKRPV GKGRKQPEPL EKP SRPKTS FNWFVNPLKT FVFFIWRRYW
RTLVLL LLV LLTVFLLLVF YTIPGQISQV IFRPLHK
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Result of BLAST Conserved Domain search on human Fer1L4 draft sequence above (five C2 domains are predicted):



the draft Fer1L4 sequence is an almost identical match to various predicted isoforms of hCG2039456 (Celera Genomics, accession number EAW76197)