

>gi|4557377|ref|NP\_000052.1| Bruton agammaglobulinemia tyrosine kinase [Homo sapiens]

MAAVILESIFLKRSSQKKKTSPLNFKKRLFLLTVHKLSSYYEYDFERGRGSKKGSIDVEKITCVETVVP  
KNPPPERQIPRRGEESSEMEQISIIERFPYPFQVVYDEGPLYVFSPTTEELRKRWIHQKKNVIRYNSDLVQ  
KYHPCFWIDGQYLCCSQAKNAMGCQILENRNGSLKPGSSHRKTKKPLPPTPEEDQILKKPLPPEPAAAP  
VSTSELKKVVALYDYMPPNANDLQLRKGDEYFILLEESNLPWWRARDKNGQEGYIPSNYVTEAEDSIEMYE  
WYSKHMTRSQAELLLKQEGKEGGFIVRDSSKAGKYTVSVFAKSTGDPQGVIRHYVVCSTPQSQYYLAEKH  
LFSTIPELINYHQHNSAGLISRLKYPVSSQONKNAPSTAGLGYGSWEIDPKDLTFLKELGTGQFGVVKYK  
WRGQYDVAIKMIKEGSMSEDEFIEEAKVMMNLSHEKLVQLYGVCTKQRPIFIITEYMANGCLLNLYLREMR  
HRFQTQQLLEMCKDVCEAMEYLESKQFLHRDLAARNCLVNDQGVVKSDFGLSRYVLDDEYTSVSGSKFP  
VRWSPPEVLMYSKFSSKSDIWAFGVLMWEIYSLGKMPYERFTNSETAEHIAQGLRLYRPHLASEKVVYTIM  
YSCWHEKADERPTFKILLSNILDVMDEES

>gi|57112579|ref|XP\_549139.1| PREDICTED: similar to Bruton agammaglobulinemia tyrosine kinase [Canis familiaris]

MVNKQSDYFEHPWCSFNLFMLSPQYDNRTFYTTGKSKITVRIASDFDKNCSLVSHTSELQKEEAMAAV  
ILESIFLKRSSQKKKTSPLNFKKRLFLLTMHKLSSYYEYDFERGRGSKKGSIDVEKITCVETVVPKNNP  
PERQIPRRGEESSEMEQISIIERFPYPFQVVYDEGPLYVFSPTTEELRKRWIHQKKNVIRYNSDLVQKYHP  
CFWIDGQYLCCSQAKNAMGCQILENRNGSLKPGSSHRKTKKPLPPTPEEDQILKKPLPPEPTAAPT  
ELKKVVALYDYMPPNANDLQLRKGEEYFILLEESNLPWWRARDKNGQEGYIPSNYVTEAEDSIEMYE  
WYSKHMTRSQAELLLKQEGKEGGFIVRDSSKAGKYTVSVFAKSTGDPQGVIRHYVVCSTPQSQYYLAEKHLFST  
IPELINYHQHNSAGLISRLKYPVSSQONKNAPSTAGLGYGSWEIDPKDLTFLKELGTGQFGVVKYKWRGQ  
YDVAIKMIKEGSMSEDEFIEEAKVMMNLSHEKLVQLYGVCTKQRPIFIITEYMANGCLLNLYLREMRNR  
TQQLLEMCKDVCEAMEYLESKQFLHRDLAARNCLVNDQGVVKSDFGLSRYVLDDEYTSVSGSKFPV  
PPEVLMYSKFSSKSDIWAFGVLMWEIYSLGKMPYERFTNSETAEHIAQGLRLYRPHLASERVYTIMYSCW  
HEKAEERPTFKILLSNILDVMDEES

>gi|7709994|ref|NP\_038510.1| Bruton agammaglobulinemia tyrosine kinase [Mus musculus]

MAAVILESIFLKRSSQKKKTSPLNFKKRLFLLTVHKLSSYYEYDFERGRGSKKGSIDVEKITCVETVIPE  
KNPPPERQIPRRGEESSEMEQISIIERFPYPFQVVYDEGPLYVFSPTTEELRKPWIHQKKNVIRYNSDLVQ  
KYHPCFWIDGQYLCCSQAKNAMGCQILENRNGSLKPGSSHRKTKKPLPPTPEEDQILKKPLPPEPTAAP  
ISTTELKKVVALYDYMPPNANDLQLRKGEEYFILLEESNLPWWRARDKNGQEGYIPSNYITEAEDSIEMYE  
WYSKHMTRSQAELLLKQEGKEGGFIVRDSSKAGKYTVSVFAKSTGEPQGVIRHYVVCSTPQSQYYLAEKH  
LFSTIPELINYHQHNSAGLISRLKYPVSKQONKNAPSTAGLGYGSWEIDPKDLTFLKELGTGQFGVVKYK  
WRGQYDVAIKMIREGSMSEDEFIEEAKVMMNLSHEKLVQLYGVCTKQRPIFIITEYMANGCLLNLYLREMR  
HRFQTQQLLEMCKDVCEAMEYLESKQFLHRDLAARNCLVNDQGVVKSDFGLSRYVLDDEYTSVSGSKFP  
VRWSPPEVLMYSKFSSKSDIWAFGVLMWEIYSLGKMPYERFTNSETAEHIAQGLRLYRPHLASERVYTIM  
YSCWHEKADERPSFKILLSNILDVMDEES

>gi|56119141|ref|NP\_001007799.1| Bruton agammaglobulinemia tyrosine kinase [Rattus norvegicus]

MAAVILESIFLKRSSQKKKTSPLNFKKRLFLLTVHKLSSYYEYDFERGRGSKKGSIDVEKITCVETVVP  
KNPPPERQIPVPRGEESSEMEQISIIERFPYPFQVVYDEGPLYVFSPTTEELRKRWIHQKKNVIRYNSDLV  
QKYHPCFWIDGQYLCCSQAKNAMGCQILENRNGSLKPGSSHRKTKKPLPPTPEEDQILKKPLPPEPTAA  
PISTSELKKVVALYDYMPPNANDLQLRKGEEYFILLEESNLPWWRARDKNGQEGYIPSNYVTEAEDSIEM  
EWYSKHMTRSQAELLLKQEGKEGGFIVRDSSKAGKYTVSVFAKSTGEPQGVIRHYVVCSTPQSQYYLAEK  
HLFSTIPELINYHQHNSAGLISRLKYPVSKQONKNAPSTAGLGYGSWEIDPKDLTFLKELGTGQFGVVKYK  
KWRGQYDVAIKMIREGSMSEDEFIEEAKVMMNLSHEKLVQLYGVCTKQRPIFIITEYMANGCLLNLYLRE  
RHRFQTQQLLEMCKDVCEAMEYLESKQFLHRDLAARNCLVNDQGVVKSDFGLSRYVLDDEYTSVSGSKF  
PVRWSPPEVLMYSKFSSKSDIWAFGVLMWEIYSLGKIPYERFTNSETAEHIAQGLRLYRPHLASDRVYTI  
MYSCWHEKADERPSFKILLSNILDVMDEES

>gi|54020689|ref|NP\_989564.2| Bruton agammaglobulinemia tyrosine kinase [Gallus gallus]

MASIIILESIFLKRSSQKKKTSPLNFKKRLFLLTESKLSYYEYDFERGRGSKKGSVDIEKITCVETVVP  
NNPPPERQVPKKGEDYNMEQISIIERFPYPFQVVYDEGPLYVFSPTTEELRKRWIHQKKNVIRYNSDLVQK  
YHPCFWIDGQYLCCSQAKNAMGCKILESRNGSLKAGRSRHRKTKKPLPPTPEEDTMVMKPLPPEPAPSAA  
GEMKKVVALYNYVPMNVQDLQKQKGEYFILLEESHLPWWKARDKNGREGYIPSNYVTATSNSLEIYEWYS  
KNITRSQAELLLKQEGKEGGFIVRDSTSKTGKYTVSVYAKSAVDPQGMIRHYVVCCTPQNQYYLAEKHLF  
NTIPELITYHQHNSAGLISRLKYPVSRHQKSAPSTAGLGYGSWEIDPKDLTFLKELGTGQFGVVKYKWR  
GQYNVAIKMIREGSMSEDEFIDEAKVMMNLSHEKLVQLYGVCTKQRPIFIITEYMANGCLLNFLRETQRR  
FQPAELLEMCKDVCEAMEYLESKQFLHRDLAARNCLVNDQGVVKSDFGLSRYVLDDEYTSVSGSKFPV

WSPPEVLLYSKFSKSDVWSFGVLMWEVYSLGKMPYERFNNSETTEHVIQGLRLYRPQQASERVYAIMYS  
CWHEKAEERPTFSALLGSIVDITDEEP

>gi|4507429|ref|NP\_003206.1| tec protein tyrosine kinase [Homo sapiens]  
MNFNTILEEILIKRSQKKKTSPLNYKERLFLVLTKSMLTYEYEGRAEKKYRKGFIIDVSKIKCIVEIVKNDG  
VIPCQNKYPFQVVDANTLYIFAPSPQSRDLVWKKLKEEIKNNNNIMIKYHPKFWTDGSIQCCRQTEKLA  
PGCEKYNLFESSIRKALPPAPETKKRRPPPIPLEEEDNSEEIVVAMYDFQAAEGHDLRLERGOEYLILE  
KNDVHWRARDKYGNEGYIPSNYVTGKKSNNLDQYEWYCRNMNRSKAEQLLRSEDKEGGFMVRDSSQPGL  
YTVSLYTKFGGEGSSGFRHYHIKETTTSPPKYYLAEKHAFGSIPEIIEYHKHNAAGLVTRLRYPVSVKGG  
NAPTTAGFSYEKWEINPSELTFMRELGSGLFGVVRLGKWRAQYKVAIKAIREGAMCEEDFIEEAKVMMKL  
THPKLVQLYGVCTQQKPIYIVTEFEMERGCLLNFLRQRQGHFSDVLLSMCQDVCEGMEYLERNSFIHRDL  
AARNCLVSEAGVVKVSDFGMARYFLDDQYTSSSGAKFPVKWCPPEVFNYSRFSSKSDVWSFGVLMWEVFT  
EGRMPFEKYTNIEVVTMVTGRHRLYQPKLASNYVYEVMLRCWQEKPEGRPSFEDLLRTIDELVECEETFGR

>gi|34880171|ref|XP\_347172.1| similar to protein tyrosine kinase TecIV [Rattus  
norvegicus]  
MNFNTILEEILIKRSQKKKTSPLNYKERLFLVLTKSMLTYEYEGRAEKKYRKGFIIDVSKIKCIVEIVKNDG  
IIPCQNKFPFQVVDANTLYIFAPSPQSRDRVWKKLKEEIKNNNNIMIKYHPKFWADGSIQCCRQTEKLA  
PGCEKYNLFESSIRKTLPPAPEIKRRPPPIPEEENTEEIVVAMYDFQATEAHLRLERGOEYIILEKN  
DTHWRARDKYGSEGYIPSNYVTGKKSNNLDQYEWYCRNTNRSKAEQLLRTEDEKGGFMVRDSSQPGLYT  
VSLYTKFGGEGSSGFRHYHIKETATSPKYYLAEKHAFGSIPEIIEYHKHNAAGLVTRLRYPVSTKGNNA  
PTTAGFSYDKWEINPSELTFMRELGSGLFGVVRLGKWRAQYKVAIKAIREGAMCEEDFIEEAKVMMKLTH  
PKLVQLYGVCTQQKPIYIVTEFEMERGCLLNFLRQRQGHFSDVLLSMCQDVCEGMEYLERNSFIHRDLAA  
RNCLVNEAGVVKVSDFGMARYVLDQYTSSSGAKFPVKWCPPEVFNYSRFSSKSDVWSFGVLMWEIFTEG  
RMPFEKNTNIEVVTMVTGRHRLPRPKLASKYLYEVMLRCWQERPEGRPSFEDLLRTIDELVECEETFGR

>gi|4502435|ref|NP\_001712.1| BMX non-receptor tyrosine kinase [Homo sapiens]  
MDTKSILEELLKRSQKKKMSPNYKERLFLVLTKTNLSSYEEYDKMKRGSRKSIEIKKIRCVKVNLEE  
QTPVERQYFPQIVYKDGLLVYASNEESRSQWLKALQKEIRGNPHLLVKYHSGFFVDGKFLCCQQSCKAA  
PGCTLWEAYANLHTAVNEEKHRVPTFPDRVLKIPRAVPVLKMDAPSSSTTLAQYDNESKKNYGSQPPSS  
TSLAQYDSNSKKIYGSQPNFMQYIPREDFPDWWQVRKLSKSSSEEDVASSNQKERNVNHTTSKISWEFP  
ESSSSEEEENLDDYDFAGNISRSQSEQLLRQKGEKGFVVRNNSQVGMVTVSLFSKAVNDKKGTVKHYH  
VHTNAENKLYLAENYCFDSIPKLIHYHQHNSAGMITRLRHPVSTKANKVPDSVSLGNGIWELKREEITLL  
KELGSGQFGVVQLGKWKQYDVAVKMIKEGSMSEDEFFQEAQTMMKLSHPKLVKFGVCSKEYPIYIVTE  
YISNGCLLNLYLRSHGKGLEPSQLLEMCYDVCEGMFLSHQFIHRDLAARNCLVDRDLCKVSDFGMTRY  
VLDDQYVSSVGTGKFPVKWSAPEVHFYFKYSSKSDVWVAFGILMWEVFLGKQPYDLYDNSQVVLKVSQGHR  
LYRPHLASDTIYQIMYSCWHELPEKRPTFQQLLSSIEPLREKDKH

>gi|15718680|ref|NP\_005537.3| IL2-inducible T-cell kinase [Homo sapiens]  
MNNFILLEEQLIKKSQKRRTPSPNFKVRFFVLTKTSLAYFEDRHGKRTLKGSIELSRIKCVIIVKSDI  
SIPCHYKYPFQVVDANTLYIFAPDRESRQRVWLALKEETRNNSLVPKYHPNFWMGKWRCCSQLEKLA  
TGCAQYDPTKNASKKPLPPTPEDNRRPLWEPEETVVIALLYDYQTNDPQELALRRNEEYCLLDSSEIHWR  
VQDRNGHEGYVPSSYLVEKSPNNLETYEWYNKISIRDKAEKLLLDTGKEGAFMVRDSRTAGTYTVSVFTK  
AVVSENNPCIKHYHIKETNDNPKRYVAEKYVFDIPLLLINYHQHNGGLVTRLRYPVCFGRQKAPVTAG  
LRYGKVIDPSELTFVQEIIGSQFGLVHLGYWLNKDKVAIKTIREGAMSEEDFIEEAEVMMKLSHPKLVQ  
LYGVLCLEQAPICLVFMEHGCLSDYLRTQRGLFAAETLLGMCLDVCEGMAYLEEACVIHRDLAARNCLV  
GENQVIKVSDFGMTRFVLDQYTSSTGTGKFPVKWASPEVFSFSRYSSKSDVWSFGVLMWEVFSSEKIPYE  
NRSNSEVEDISTGFRLYKPRLASTHVYQIMNHCWKEKPEDRPAFSLRLLRQLAEIAESGL

>gi|57085693|ref|XP\_546277.1| PREDICTED: similar to IL2-inducible T-cell kinase  
[Canis familiaris]  
MNNFILLEEQLIKKSQKRRTPSPNFKVRFFVLTKTSLAYFENRHGKRTLKGSIELSRIKCVIIVKSDI  
SIPCHYKYPFQVVDANTLYIFAPDRESRQRVWLALKEETKNNNSLVPKYHPNFWMGKWRCCSQLEKLA  
VGCAQYDPTKNASKKPLPPTPEDNRRSLREPEETIVVIALLYDYQTNDPQELMLQRNEEYLLDSSEIHWR  
VQDRNGHEGYVPSSYLVEKSPNSLETYEWYNKISIRDKAEKLLLDTGKEGAFMVRDSRTPGTYTVSVFTK  
AIVSENNPCIKHYHIKETNDNPKRYVAEKYVFDIPLLLINYHQHNGAGLVTRLRHPVCSWRQKAPVTAG  
LRYGKVIDPTELTTFVQEIIGSQFGLVHLGYWLNKDKVAIKTIQEGAMSEEDFIEEAEVMMKLSHPKLVQ  
LYGVLCLEQAPICLVFMEHGCLSDYLRNQRGLFAAETLLGMCLDVCEGMAYLEEACVIHRDLAARNCLV  
GENQVIKVSDFGMTRFVLDQYTSSTGTGKFPVKWASPEVFSFSRYSSKSDVWSFGVLMWEVFSSEKIPYE  
NRSNSEVEDITTFGRFLYKPRLASSNIYQIMNHCWKEKPEDRPPFCRLLSQAELAEIAESGL

>gi|6753196|ref|NP\_033889.1| BMX non-receptor tyrosine kinase [Mus musculus]

MESKSI LEELLKKSQKKKMSPNKYKERLFVLT KTSLSYEYDKMKRGSRKGSIEIKKIRCVKVNLEE  
QTPVERQYPFQIVYKDGLLVYASNEESRCQWLKALQKEIRGNPHLLIKYHSGFFVDGKFLCCQQSCKAA  
PGCTLWEAYADLHIAISDEKHRAPTFFPERLLKIPRAVPVLKMDASSSGAILPQYDSYSKSKSCGSQPTSNI  
RYIPREDCPDWWQVRKLLKSEEDIACSNQLERNIASHSTSKMSWGFPESSSSEEEENLHAYDWFAGNISRS  
QSEQLLRQKKGEGAFMVRNSSQMGMYTVSLFSKAVNDKKGTVKHYHVHTNAENKLYLAENYCFDSIPKLI  
HYHQHNSAGMITRLRHPVSTKANKVPVSVALGSGIWELKREEITLLKELGNGQFGVVQLGQWKQYDVAV  
KMIKEGAMSEDEFFQEAQTMMKLSHPKLVKFGVCSKYPYIYIVTEYITNGCLLNLYLKSHGKGLESCQLL  
EMCYDVCEGMAFLESHQFIHRDLAARNCLVSDLSVKVSDFGMTRYVLDQYVSSVGTGKFPVKWSAPEVF  
HYFKYSSKSDVWAFGILMWEVFLGKQPYDLYDNSEVVVKVVSQGHRLYRPLASDTIYQIMYSCWHELPE  
KRPTFQQLLSAIEPLREQDKP

>gi|57095792|ref|XP\_539259.1| PREDICTED: similar to protein tyrosine kinase  
TecIV [Canis familiaris]

MRRVRRGGRGLRKCQGRAGRTRGERLLPRARSRPSREEEGFLPSAARTGSARQNTGIFNGRRQSDQKTE  
MNFNTILEEILIKRSQKKKTSPLNYKERLFVLT KSM LTYEGRAGEWHLLLSGCPEINFCCGLSFQLV  
EFFKGGDLLPADTEDYIHIRIQQRNGRKTLLTTVQGIHYDYHKKVFKKFTCNGTVIEHPEYGERLFCPET  
EALVRHTEPCDLGLRWKHRFFCASSAPDTLLQTHFYIGVLWLKVERFPAPGRLLRVWVPRWAHTFLFPRAG  
GDRIVCTVPDPADALLGPQVEVIPCPCAGGLAESGLATWATGILYLALGESLRMHSATRMNFCQSIRELI  
ALAIANGGTARVWAVRKERPGPPHFAPVQKHGAVSQAQRGLGCGCGAAAKGFPTSRAALLRSWLSAHW  
AVTGVRGRVGVIVPLVLQAEATETSASDGGDGTFTVHWVFTGAAGAGLKGKPREQGTCDRLPGRLPRELWQ  
KDRQPNCVPVNSESPKKYRKGFI DVSKIKCIVEIVKNDVVI PCQNKYPFQVVDANTLYVFPASAQSRDRW  
VKKLKEEIKNNNNIMIKYHPKFWADGSYQCCRQTEKLAPGCEKYNLFESSIKKALPPAPETKKRRPPPI  
PPEEEDNSEEIVVAMYDFQATEAHDLRLERGOEYIILEKNDVHWRARDKYGSEGYIPSNYVTGKKSNNL  
DQYEWYCRNTNRSKAEQLLRSEDKEGGFMVRDSSQPGMYTVSLYTKFGESESSGFRHYHIKETTTSPPKY  
YLAEKHAFGSIPEIIEYHKHNAADWSHVLDMKFSISLNLCTHYQNGKKNPKNRSRIGLVTRLRYPVS  
TKEKNAPTTAGFSYEKWEINPSELTFMRELGSGLFGVVRLGKWRAQYKVAIKAIKEGAMCEEDFIEEAKV  
MMKLTHPKLVQLYGVCTQKPIYIVTEFMERGC LLNFLRQRQGHLSRDMLLSMCQDVCEGMEYLERNSFI  
HRDLAARNCLVNEAGVVKVSDFGMARYVLDQYTS SSGAKFPVKWCPPEVFNFYSRFSKSDVWSFGVLMW  
EIFTEGKMPFEKNTNYEVVTVTRGHRLYRPKLASKYVYEKPEGRPSFEDLLRTIDELVECEETFGR

>gi|6754386|ref|NP\_034713.1| IL2-inducible T-cell kinase [Mus musculus]

MNNFILLEEQLIKKSQKKRRTSPSNFKVFFVLT KASLAYFEDRHGKRTLKSGSIELSRIKCEIVKSDI  
SIPCHYKYPFQTLVYLQVVDNYLLVYFAPDCESRQRWVLT LKEETRNNNSLVSKYHPNFWM DGRWRCCS  
QLEKPAVGCAPYDPSKNASKKPLPPTPEDNRRSFQEP EETLVIALYDYQTNDPQELALRCDEEYLLDSS  
EIHWRVVDKNGHEGYAPSSYLVEKSPNNLETYEWYNKISIRDKAELLLDGTGKEGAFMVRDSRTPGTYT  
VSVFTKAIISENPCIKH YHIKETNDSPKRYVAEKYVFD SIPLLIQYHQYNGGGLVTRLRYPVCSWRQKA  
PVTAGLRYGKWIQPSSELTFFVQEIGSGQFGLVHLGYWLNKDKVAIKTIQEGAMSEEDFIEEAEVMMKLSH  
PKLVQLYGVCLQAPICLVFEFMEHGCLSDYLRSQRGLFAAETLLGMCLDVCEGMAYLEKACVIHRDLAA  
RNCLVGENQVIKVSDFGMTRFVLDQYTSSTGTGKFPVKWASPEVFSFSRYSSKSDVWSFGVLMWEVSE  
KIPYENRSNSEVEDISTGFRLYKPRLASCHVYQIMNHCWKEKPEDRPPFSQLLSQLAEIAEAGL

>gi|7305569|ref|NP\_038717.1| cytoplasmic tyrosine kinase, Dscr28C related [Mus  
musculus]

MMVSFPVKINFHSSPQSRDRWVKKLKEEIKNNNNIMIKYHPKFWADGSYQCCRQTEKLAPGCEKYNLFES  
SIRKTLPPAPEIKKRRPPPIPEEENTE EIVVAMYDFQATEAHDLRLERGOEYIILEKNDLHWRARDK  
YGWYCRNTNRSKAEQLLRTEDEKGGFMVRDSSQPLGYTVSLYTKFGESESSGFRHYHIKETATSPKYYL  
AEKHAFGSIPEIIEYHKHNAAGLVTRLRYPVSTKGNAPTTAGFSYDKWEINPSELTFMRELGSGLFGVV  
RLGKWRAQYKVAIKAIREGAMCEEDFIEEAKVMMKLSHPKLVQLYGVCTQKPIYIVTEFMERGC LLNFL  
RQRQGHFSRDMLLSMCQDVCEGMEYLERNSFIHRDLAARNCLVNEAGVVKVSDFGMARYVLDQYTS SSG  
AKFPVKWCPPEVFNFYSRFSKSDVWSFGVLMWEIFTEGRMPFEKNTNYEVVTVTRGHRLRHPKLATKYL  
YEVMLRCWQERPEGRPSFEDLLRTIDELVECEETFGR

>gi|18858911|ref|NP\_571179.1| IL2-inducible T-cell kinase [Danio rerio]

MYPRVILKETLYKKSQKKRRTSPCNKERTFILNTQDLAYFEQRPGKKPTQKGCIELSHIKCEIVRSDV  
PIPCDYKYPFQI IHDSYLYVYFAPDND CRLKWKALKEAIQNNSLFLKYHPDFWEGEKWRCCQOTEKLAT  
GCSEYYPNGAKPLPPTDPDSRRSSEPEERIVVALRNFIPKEHTDLPLQKDEEYFIVDCSEPNNWTVKDKD  
GNVGSVPCIYVTEKLSNNIEKFEWYNKDINRTEAEDLLMQENKDGGMVRNSKHAGVYTVSIFTRVSGSN  
GEKCPQVKHYQIKVQSEGEKVLVYLAEKYLFPTIPELIRYHQHNPAGLITRLRHCVSRNVPNSARIKELS  
SDKWEIHPDEVKLSVELGSGQFGLVWKGSDQREVAVKTVREGFMSEEEFKEEAQVMMKLSHNRLVQLYG  
VVTQRSPYIYLVFVFMENGCLTEFLRAKKGKLSQKALLEMCLDVSEGMAYLESSNF IHRDLAARNCLVSEN  
SVVKIADFGMTRFVLDQYTS SHGSKFPVRWSSPEVIKFGKYSSKSDVWSFGVFMWEVYSEGRTPYDNRS  
NSEVVETLNAGHRLKPRLCQSVYELMQWSWKEKPEDRPSFALLLHELACLDQEP

>gi|4507743|ref|NP\_003319.1| TXK tyrosine kinase [Homo sapiens]  
MILSSYNTIQSVFCCCCSVQKRQMRQTQISLSTDEELPEKYTQHRRPWLSQLSNKKQSNTGRVQPSKRK  
PLPPLPPEVAEEKIQVKALYDFLPREPCNLALKRAEEYLILEKYNPHWWKARDRLGNEGLIPSNYVTEN  
KITNLEIYEWYHRNITRNQAEHLRQESKEGAFIVRDSRHLGYSYTI SVFMGARRSTEEAAIKHYQIKKNS  
GQWYVAERHAFQSIPELIWYHQHNAAGLMTRLRYPVGLMGSCLPATAGFSYEKWEIDPSELAFIKEIGSG  
QFGVVHLGEWRSHIQVAIKAINEGSMSEEDFIEEAKVMMKLSHSHKLVQLYGVCIQRKPLYIVTEFMENGC  
LLNYLRENKGLRKEMLLSVCQDICEGMEYLERNGYIHRDLAARNCLVSSTCIVKISDFGMTRYVLDDEY  
VSSFGAKFPKWSPEVFLFNKYSSKSDVWSFGVLMWEVFTTEGKMPFENKSNLQVVEAISEGFRLYRPHL  
APMSIYEVMYSCWHEKPEGRPTFAELLRAVTEIAETW

>gi|7305601|ref|NP\_038726.1| TXK tyrosine kinase [Mus musculus]  
MISFSDSSVFQSVLCCCCRCVQKRQVRTQISLSREEELSEKHSQRQRPWFAKLMGKTQSNRGGVQPSKR  
KPLPPLPQEPDERIQVKALYDFLPREPGNLALKRAEEYLILERCDPHWWKARDRFGNEGLIPSNYVTEN  
RLANLEIYEWYHKNITRNQTERLLRQEAKEGAFIVRDSRHLGYSYTI SVFTRARRHTQSSIKHYQIKKNS  
GQWYITERHLFPSVPELIQYHQYNAAGLISRLRYPVGLMGSCLPATSGFSYEKWEIDPSELTFVKEIGSG  
QFGVVHLGEWRAHIPVAIKAINEGSMSEEDFIEEAKVMMKLSHSRLVQLYGVCIQKPLYIVTEFMENGC  
LLDYLREKGLQKALLSMCQDICEGMAYLERSCYIHRDLAARNCLVSSACVVKISDFGMARYVLDDEY  
ISSGAKFPVKWCPPEVVFHFNKYSSKSDVWSFGVLMWEVFTTEGKMPFENKSNLQVVEAISQGFRLYRPHL  
APMTIYSVMYSCWHESPGRPTFAELLQVLTEIAETW

>gi|57095790|ref|XP\_539258.1| PREDICTED: similar to Tyrosine-protein kinase TXK  
[Canis familiaris]  
MICFSDNTIQSIFCCCCSLQKRQVRTQISLSKDEEFSEKYTPHRRLWFRELPSKKRSNRGHTQPSKRK  
PLPPLPLSEVTEEKIQVKALYDFVPREPCDLALKRAEEYLILEKYNPHWWKARDRLGNEGLIPSNYVTEN  
KLTNLEIYEWYHRNITRNQAEVLRQESKEGAFIVRDSRHLGYSYTI SVFIKARNMEATIKHYQIKKNS  
GQWYVAERHLFPSIPELIWYHQHNAAGLMTRLRYPVGLMGSCLPATAGFSYEKWEIDPTELAFAVKEIGSG  
QFGVVHLGEWRAHIRVAIKAISEGSMSSEEDFIEEAKVMMKLSHSRLVQLYGVCIQKPLYIVTEFMENGC  
LLNYLRDRRGALTRMELLSMCQDICEGMEYLERNCFIHRDLAARNCLVSAASIVKISDFGMTRYVLDDEY  
ISSGAKFPKWSPEVVFHFNKYSSKSDVWSFGVLMWEVFTTEGKMPFENKSNLQVVEAISKGFRLYRPHL  
APMSIYEVMYSCWHESIQRSKGRTHPRPAFVPEVLDGLSHRLRATRLLEQIPAARGVECFGWLSLQPGGT  
DLFSRHHSEVAVVGSAGGAAGLWTELARKSRMAQAPLPAVHRVARRPWSPPGAVLPRSGFLRPRAPT  
PSICKGTRLLSLGSAHHPWGGKDPNPVPGRRPASHLGSFLMSPAIPQQHACPVAGHTDDFTDRALRQP  
LPPPQNGVVCAAPGPGGPGLLARPRGSEQAPRLVPSHSAARSVGDHCPPLTDYTPLKSSGPAPPSALHL  
SPRWPPQHS

>gi|34880173|ref|XP\_347278.1| similar to protein tyrosine kinase [Rattus  
norvegicus]  
MRVPILTLEAFANKPGPKGFVGDISCSNDGNGFILCPGYSAPCKKQDSTFQSILCCCCSVQGRVVT  
TRISLSREEELSEKHSQRQRFWFKLMGKSQEFTEERIRVKALYDFLPREPCNLALKRAEEYLILERC  
DPHWRARDRLGNEGLIPSNYVTENRLTNLETYEWYHKNITRDQTERLLRQEAKEGAFIVRDSRHLGYSYTI  
SVFTRARRHTQSSIKHYQIKKNSGQWYVTERHLFPSVPELIQYHQYNAAGLMSRLRYPVGLMGSCLPAT  
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VSSACVVKISDFGMARYVLDDEYISSGAKFPVKWSPPEVVFHFNKYSSKSDVWSFGVLMWEVFTTEGKMP  
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>gi|24582767|ref|NP\_723370.1| CG8049-PC, isoform C [Drosophila melanogaster]  
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QFSLQHNSGSLGGVGGGLGGGSLGLGGGGGGGCTPTSLQPQSSLTTFKQSPTLLNNGTLLDANM  
PGGIPTPGTPNSKAKDNSHFVKLVVALYPFKAIEGGDLSLEKNAEYEVIDDSQEHWWKVDALGNVGYIP  
SNYVVKPALLGLERYEWYVGDMSRQRAESLLKQGDKEGCFVVRKSSTKGLYTLSTLTKVPQSHVKHYHIK  
QNARCEYYLSEKHCCETIPDLINYHRHNSGGLACRLKSSPCDRPVPPTAGLSHDKWEIHPMELMLMEELG  
SGQFGVVRGKWRGSDITAVKMMKEGTMSEDDFIEEAKVMTKLQHPNLVQLYGVC SKHRPIYIVTEYMKH  
GSLNLYLRHEKTLIGNMGLLLDMCIQVSKGMTYLERHNYIHRDLAARNCLVGSENVVKVADFGFLARYVL  
DDQYTSSTGGTKFPKWPAPPEVLNYTRFSSKSDVWAYVGLMWEIFTGKMPYGRLLKNTTEVVERVQRGIILE  
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>gi|24582764|ref|NP\_723369.1| CG8049-PD, isoform D [Drosophila melanogaster]  
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GGGSGVIEGQQSGRAVPQYTYLVIANSEKERSEWIRAIRQVCEDSNTPKSYRYHPGLWSGKKWSCCKGL  
SRTTFGCRAAAHWREANNPNPNSGSSPAQNSTRSISPNSSTTNSQFSLQHNSGSLGGVGGGLGGGSLG  
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YPFKAIIEGGDLSLEKNAEYEVIDDSQEHWWKVDALGNVGYIPSNYVVKPKALLGLERYEWYVGDMSRQRA  
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NSGGLACRLKSSPCDRPVPPTAGLSHDKWEIHPMELMLMEELGSGQFGVVRGKWRGSIDTAVKMMKEGT  
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VSKGMTYLERHNYIHRDLAARNCLVGSENVVAVDFGLARYVLDQYTS SGGTKFPIKWAPPEVLNYTRF  
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RVLMDQLALVAQTLTD

>gi|57111905|ref|XP\_548870.1| PREDICTED: similar to Cytoplasmic tyrosine-protein  
kinase BMX (Bone marrow kinase BMX) (Epithelial and endothelial tyrosine kinase)  
(ETK) (NTK38) [Canis familiaris]

MGGAVGGGEQSLEELSRITDGPVSGTGEEGGTTRAKRGHTVLTMSRDSRSFTAIVWPVGTTLARAI PFPLG  
ESLNNCPMCSFSGTLPFSATPPAPLRPAPPKGCETVRCRWKEGGQPRLCACKSRLTPRRWTPGGRSRAT  
MDDNMDTKSILEELLLKRSQQKKKMSPSNYKERLFLVLTKTNLSYYEYDKMKRGSKKGSI EIKKIRCVK  
NLEEQTPVERQYPFQIVYKDGLLVYASNEESRSQWLKALQKDIKPPDRLGHDKLSWRGKHSVFMVAYT  
QEVWADVHLLNVFLLLGQHLLMLCFLPAWSPEIRGNPHLLIKYHSGFFVDGKFLCCQQSCKAAPGCTLWE  
AYADLHITTHEEKHRVPIFPDRVLKIPRAVPIFKMNEPSSSTTVAPYDSDSKKNYGSQNLNANMQHFPRED  
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AKEKAARNCLVDS DLSVKVSDFGMTRHSANTRKVFVMSLTILYNQISVPAKGDVIFPKPTGQKRPLGKA  
TRCKEAGDLEKRGSPPTAGL CGPQH PARRGLSLCTARGLKLCVHLCPRRYVLDQYVSSVGT KFPVKWS  
APEVFHYFKYSSKSDVWAFGKNVATRAPAPFRKLASPTGNRKS SKHPFLAEAPSADEMP DGRGELEAAAA  
AARTPYLDPE SAAASEGLRDTVTIQRASDVPVGTVPERE PVVIVIRVSKGHLTHNIPGTIEAKGGIFVSD  
LSCKSARAADLTGRPPAAAFPMARWPARGGPWRDGLRRRGRHRATFHARASGWDWFPGLPRPGRSLPEP  
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>gi|38079278|ref|XP\_355556.1| similar to Txk [Mus musculus]

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MMKLSHSRLVQLYGVCIQQKPLYIVTEFMENGCLLDYLREKRGQLQKALLLSMCQDICEGMAYLERSCYI  
HRDLAARNCLVSSACVVKISDFGMARYVLDDEYISSSGAKFPVKWCPPEVFHFNKYSSKSDVWSFGVLMW  
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>gi|24585924|ref|NP\_724441.1| CG7873-PB, isoform B [Drosophila melanogaster]

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EKKLLL PENEHGAFLIRDSESRHNDYSLSVRDGDTVKHYRIRQLDEGGFFIARRTTFR TLQELVEHYSKD  
SDGLCVNLCKPCVQIEKPVTEGLSHRTRDQWEIDRTSLKFVRKLGSGQFGDVWEGLWNNTTPVAIKTLKS  
GTMDPKDFLAEAIQIMKLRHTKLIQLYAVCTVEEPIYIITELMKHGSLLLEYLQAIAGKGRSLKMQTLIDM  
AAQIAAGMAYLESQNYIHRDLAARNVLDGDNIVKIADFGLARLIKEDEYEARV GARFP IKWTAPEAANY  
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>gi|33859504|ref|NP\_033724.1| v-abl Abelson murine leukemia oncogene 1 [Mus  
musculus]

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RGASEDDSR ELCNGPPALTS DAAEPTKSPKASNGAGVPNGAFREPGNSGFRSPHMWKKSSTLTGSRLAAA  
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SEQVAKSTAMP PRLVKKNEEAAEEGFKDTESSPGSSPPLTPKLLRRQVTASPS SGLSHKKEEATKGSAS  
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>gi|52218930|ref|NP\_001004543.1| zgc:92124 [Danio rerio]  
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KQSDGLCRKLDKACEKPKAQKPWDKDAWEISKDSIKMVKKLGAGQFGEVWMAFYNNSTKVAVKTLKPGTM  
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>gi|6382058|ref|NP\_009297.1| v-abl Abelson murine leukemia viral oncogene  
homolog 1 isoform b [Homo sapiens]  
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NTLAELVHHHSTVADGLITTLHYAPKRNKPTVYGVSPNYDKWEMERTDITMKHKLGGGQYGEVYEGVWK  
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QEVNAVLLYMATQISSAMEYLEKKNFIHRDLAARNCLVGENHLVKVADFGLSRLMTGDTYTAHAGAKFP  
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SKLKPAPPPPPAASAGKAGGKPSQRPGQEAAGEAVLGAKTKATSLVDVNSDAAKPSQPAEGLKPKVLP  
TPKPHPAKPSGTPISPAVPLSTLPSASSALAGDQPSSTAFIPLISTRVSLRKRTRQPPERASGAIKGVV  
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>gi|4885045|ref|NP\_005148.1| v-abl Abelson murine leukemia viral oncogene  
homolog 1 isoform a [Homo sapiens]  
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EEFLKEAAVMKEIKHPNLVQLLGVCTREPPFYIITEFMTYGNLLDYLRECNRQEVNAVLLYMATQISSA  
MEYLEKKNFIHRDLAARNCLVGENHLVKVADFGLSRLMTGDTYTAHAGAKFPKWTAPESLAYNKFSIKS  
DVWAFGVLLWEIATYGMSPYPGIDRSQVYELLEKDYRMKRPEGCPEKVYELMRACWQWNPSDRPSFAEIH  
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GGKPSQRPGQEAAGEAVLGAKTKATSLVDVNSDAAKPSQPAEGLKPKVLPATPKPHPAKPSGTPISPAV  
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>gi|47551197|ref|NP\_999783.1| src-family protein tyrosine kinase  
[Strongylocentrotus purpuratus]  
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MSPAFLAEANVMKKVRHERLVQLYAVCSREPIYIVTELMSNGSLLDYLDKDGTKDKLTTTHVDMGAQI  
ASGMAYLES MNFVHRDLAARNVLVGEENVKVAADFGLARLIEEDEYMARVGAKFPKWTAPEAALHGRFT  
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>gi|24665444|ref|NP\_524843.2| CG4032-PA [Drosophila melanogaster]  
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SESSPGQRSISLRYEGRVYHYRISEDPDGKVFVTQEAKFNTLAELVHHHSVPHEGHGLITPLLYPAPKQN  
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KEPATPAPAPATVAVANNANCNTTGTNRKEDGSKKFSQAMQKTEIKIDVTNSNVEADAGAAGEGDLGKR  
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LRQISNALNR

>gi|6382062|ref|NP\_009298.1| v-abl Abelson murine leukemia viral oncogene  
homolog 2 isoform b [Homo sapiens]  
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>gi|57088957|ref|XP\_537174.1| PREDICTED: similar to ABL2 protein [Canis  
familiaris]  
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FSTLAELVHHHSTVADGLVTTLHYPAPKCNKPTVYGVSPIDHKWEMERTDITMKHKLGGGQYGEVYVGVW  
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KETCFTRDRKGGFFSSFMKRNAPTPPKRSSSFREMENQPHKKYELTGNFSSVASLQHADGFSFTPAQQE  
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RSNSTSSMSSGLPEQDRMAMTLPRNCQRSKQLERTVSTSSQPEENVDRANDMLPKKSEEGAAPSRERPK  
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AAALPTTHNHKVPVLI SPTLKHTPADVQLIGTDSQGNKFKLLSEHQVTSSGDKDRPRRVKPKCAPPPPPV  
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NGTAGTKVALRKTQVAEKISADKISKEALLECADLLSSAITEPVPNSQLVDTGHQLLDYCSGYVDCIPQ  
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>gi|6382060|ref|NP\_005149.2| v-abl Abelson murine leukemia viral oncogene  
homolog 2 isoform a [Homo sapiens]

MVLGTVLLPNTYGRDQDTS LCCCLTEASESALPDLTEALHRPYGCDVEPQALNEAIRWSSKENLLGATE  
SDPNLFVALYDFVASGDNTLSITKGEKLRVLGYNQNGEWSEVRSKNGQGWVPSNYITPVNSLEKHSWYHG  
PVSRSAAEYLLSSLINGSFLVRESESSPGQLSISLRYEGRVYHYRINTTADGKVYVTAESRFSTLAELVH  
HHTSTVADGLVTTLHYPAKCNKPTVYGVSP IHDKWEMERTDITMKHKLGGGQYGEVYVGVWKKYSLTVAV  
KTLKEDTMEVEEFLKEAAVMKEIKHPNLVQLLGVCTLEPPFFYIVTEYMPYGNLLDYLRECNKKEVTA  
LYMATQISSAMEYLEKKNFIHRDLAARNCLVGENHVVKVADFGLSRLMTGDTYTAHAGAKFPKWTAPES  
LAYNTFSIKSDVWAFGVLLWEIATYGMSPYPGIDLSQVYDILLEKGYRMEQPEGCPKVKYELMRACWKWSP  
ADRPSFAETHQAFETMFHDSSISEEVAEELGRAASSSSVVPYLPRLPILPSKTRTLKQVENKENIEGAQ  
DATENSASSLAPGFIRGAQASSGSPALPRKQRDKSPSSLLEDAKETCFTRDRKGGFFSSFMKRNAPTTP  
KRSSSFREMENQPHKKYELTGNFSSVASLQHADGFSFTPAQQEANLVPPKCYGGSFAQRNLCNDDGGGGG  
GSGTAGGGWSGITGFFTPRLIKKTLGLRAGKPTASDDTSKFPFRSNSTSSMSSGLPEQDRMAMTLPRNCQ  
RSKLQLERTVSTSSQPEENVDRANDMLPKKSEESAAPSRERPKAKLLPRGATALPLRTPSGDLAITEKDP  
PGVGVAGVAAAPKGEKNGGARLGMAGVPEDGEQPGWSPAKAAPVLP TTHNHKVPVLI SPTLKHTPADV  
QLIGTDSQGNKFKLLSEHQVTSSGDKDRPRRVKPKCAPPPPPVMRL LQHPSICSDPTEEPTALTAGQSTS  
ETQEGGKKAALGAVPISGKAGRPMPPPPQVPLPTSSISPAKMANGTAGTKVALRKTQAAEKISADKISK  
EALLECADLLSSALTEPVPNSQLVDTGHQLLDYCSGYVDCIPQTRNKFAFREAVSKLELSLQELQVSSAA  
AGVPGTNPVLNLLSCVQEISDVVQR

>gi|20428652|ref|NP\_005347.2| lymphocyte-specific protein tyrosine kinase [Homo  
sapiens]

MGCSCSHPEDDWMENIDVCENCHYPIVPLDGGKGTLLIRNGSEVRDPLVITYEGSNPPASPLQDNLVIALH  
SYEPSHDGDLGFEKGEPLRILEQSGEWWKAQSLTTGQEGFIPFNFAKANSLEPEPWFFKNLSRKDAERQ  
LLAPGNTHGSFLIRESESTAGSFSLSVRDFDQNGQEVVKHYKIRNLDNNGGFYISPRITFPGLHELVRHYT  
NASDGLCTRLSRPCQTQKPQKPWWEDEWEVPRETLKLVRLGAGQFGEVWVGYYNGHTKVAVKSLKQGS  
SPDAFLAEANLQKQLQHRVRLYAVVTQEPYIITEYMENGLVDFLKTTPSGIKLTINKLLDMAAQIAE  
GMAFIEERNYIHRDLAARNILVSDTLCKIADFGLARLIEDNEYTAREGAKFPKWTAPEA INYGTFTIK  
SDVWSFGILLTEIVTHGRIPYPGMTNPEVIQNLERGYRMVRPDNCPPEELYQLMRLCWKERPDRPTFDYL  
RSVLEDDFTATEGQYQPP

>gi|31542823|ref|NP\_034367.2| fyn-related kinase [Mus musculus]

MGSVCVRLWAYLQPFLLPCWSQEADKSVVIENPGAFCPPEAPRSQEPERSHGQYFVALFDYQARTAE  
DLRAGDKLQVLDTSHEGWLLARHLEKKGTTGLGQQQLQGYIIPSNYVAEDRSLQAEPWFFGAIKRA  
DAEKQLLYSENQTGAFLIRESESQKGFSLSVLDEGVVKHYRIRRLDEGGFFLTRRKFVSTLNEFV  
NYTTTTSDGLCVKLEKPCCLKIQVPTPFDLSYKTADQWEIDRNSIQLLKRLGSGQFGEVWEG  
LWNNTTPVAVKTLKPGSMDPNDFLREAQIMKSLRHPKLIQLYAVCTLEDPIYIITELMRHGS  
LQEYLQNDGGSKIHLIQQVDMAAQVASGMAYLESQNYIHRDLAARNVLVGEHNIYKVADFG  
LARLVFKVDNEDIYESKHEIKLPVKWTAPEAIRTNKF SIKSDVWSFGILLYEIITYGKMPY  
SGMTGAQVIQMLSQNYRLPQPSNCPQQFYSIMLECWNVPEKQRPTFETLHWKLEDYFETDCS  
YSYDNTNNFIN

>gi|61651696|ref|NP\_001013288.1| v-yes-1 Yamaguchi sarcoma viral oncogene  
homolog 1 [Danio rerio]

MGCVKSKEDKGPTQKYPDPDPTNPTPGSHMGLYGPDPQTQMGQSPALKGPTNNYNSRSSGLTP  
FPGSSSVITPFGGASSSFSTVAVNNPFPVVTGGVTFVVALYDYEARTSDDLFSKGRDFQIINNTE  
GDWWEARSINTGQKGYIIPSNYVAPADSIQAEWYFGKMRKDAERLLLLPGNQRGTFVRESE  
TTKGAYSLSIRDWDEMKGDNVKHYKIRKLDGGYIITTRAQFDTLQKLVKHYTEHADGLCYRLT  
TVCPVTKPQTQGLAKDAWEIPRESLRLELKLGGQCFGEVWMTWNGTTKVAIKTLKPGTMSPE  
AFLQEAQIMKLRHDKLVPLYAVVSEEPYIYIVTEYMGKGSLLDFLKEGEGKYLKLPQLVDM  
AAQIADGMAFIERMNYIHRDLAARNILVGDNLVCKIADFGLARLIEDNEYTARQAKFPKWT  
APEAALYGRFTIKSDVWSFGILLTELVTGRVPPYGMVNREVLEQVERGYRMPCPQGCPE  
SLHEMMRLCWNKNGPDERPTFEYIQSFLEDYFTATEPQYQPGDNL

>gi|33859570|ref|NP\_034823.1| lymphocyte protein tyrosine kinase [Mus musculus]

MGCVCSSNPEDDWMENIDVCENCHYPIVPLDSKISLPIRNGSEVRDPLVITYEGSLPPASPLQD  
NLVIALHSYEPSHDGDLGFEKGEQLRILEQSGEWWKAQSLTTGQEGFIPFNFAKANSLEPE  
PWFFKNLSRKDAERQLLAPGNTHGSFLIRESESTAGSFSLSVRDFDQNGQEVVKHYKIRNLD  
NNGGFYISPRITFPGLHDLVRHYTNASDGLCTKLSRPCQTQKPQKPWWEDEWEVPRETLKLV  
RLLGAGQFGEVWVGYYNGHTKVAVKSLKQGSMPDAFLAEANLQKQLQHRVRLYAVVTQEPYI  
ITEYMENGLVDFLKTTPSGIKLVNKLDMAAQIAE



GMAFIEEQNYIHRDLRAANILVSDTLSCKIADFLARLIEDNEYTAREGAKFPIKWTAPEAINYGTFTTIK  
SDVWSFGILLTEIVTHGRIPYPGMTNPEVIQNLERGYRMVPRDNCPEELYHLMMLCWKERPEDRPTFDYL  
RSVLDDFFTTATEGQYQPQP

>gi|24657868|ref|NP\_524934.2| CG7524-PB [Drosophila melanogaster]  
MGNKCCSKRQDQELALAYPTGGYKKS DYTFGQTHINSSGGGNMGGVVGQKHNNGGSLDSRYTPDPNHRGP  
LKIGGKGGVDIIRPRTTPTGVPVGLKRVVVALYDYKSRDESDLSFMKGDREVIDDTESDWVRVNLTT  
RQEGLIPLNFVAEERSVNSEWFFENVLKREADKLLLAENPRGTFLVRPSEHNPNNGYSLSVKDWEDGRG  
YHVKHYRIKPLDNGGYYIATNQTFPSLQALVMAYSKNALGLCHILSRPCPKPQPQMWDLGPELRDKYEIP  
RSEIQLLRKLGKRGNFGEVFGKWRNSIDVAVKTLREGTMSTAAFLQEAAIMKKFRHNRLVALYAVCSQEE  
PIYIVQEYMSKGSLLDFLREGDGRYLFHFDLIYIATQVASGMEYLESKQLIHRDLAARNVLIGENNVAKI  
CDFGLARVIADDEYCPKQGSRFPVKWTAPEAIYIGKFSIKSDVWSYGILLMELFTYQVPPYGMHSREVI  
ENIERGFMRPKPTNHYFPDNIYQLLLQCWDVAPEKRPTFEFLNHYFESFSVTSEVPYREVQD

>gi|57530388|ref|NP\_001006390.1| lyn protein non-receptor kinase [Gallus gallus]  
MGCIKSKRKANLHGDGLDLKNQPANTDAHLLPGQIFANEETEEHGVIIVVALYPYDGLHEDDLSFKKGEKL  
KVIEELGEWVKARSLTTKKEGFIPSNYVAKVNTLETEEWFVKDITRKDAERQLLAPGNGPGAFLIRESET  
LKGSYSLSIRDYDPQHGDIKHYKIRSLDNGGFYISPRITFPSINDMIKHYKQSDGLCRKLEKACISPK  
PQKPWDKDAWEIPRESIKLVKKGAGQFGEVWVGYYHNSKTVAVKTLKPGTMSVQAFLEENLMKTLQHD  
KLVRLYAVVTKEEPYIYIITEFMAKGSLLDFLKSDEGSRLMLPKLIDFSAQIAEGMAYIERKNYIHRDLRA  
ANVLVSDLLMCKIADFLARVIEDNEYTAREGAKFPIKWTAPEAINYGSFTTIKSDVWSFGILLYEIVTYG  
KIPYPMGMSNSDVMVALQRGYRMPRMETCPAELYDIMKTCWKDKAEERPTFDYLSVLDFFYTATEGQYQP  
QP

>gi|4503787|ref|NP\_002022.1| fyn-related kinase [Homo sapiens]  
MSNICQRLWEYLEPYLPCLSTEADKSTVIENPGALCSPQSQRHGHYFVALFDYQARTAEDLSFRAGDKLQ  
VLDTLHEGWVWFARHLEKRRDGGSSQQLQGYIPSNYVAEDRSLQAEPWFFGAIGRSDAEKQLLYSENKTGSF  
LIRESESQKGEFSLSVLDGAVVKHYRIKRLDEGGFFLTRRRIFSTLNEFVSHYTKTSDGLCVKLGKPCPK  
IQVPAPFDLSYKTVDQWEIDRNSIQLLKRLGSGQFGEVWEGWGLWNNTTPVAVKTLKPGSMDPNDFLREAQI  
MKNLRHPKLIQLYAVCTLEDPIYIITELMRHGSQLEYLQNDTGSKIHLTQQVDMAAQVAGSMAYLESRNY  
IHRDLAARNVLVGEHNIYKVADFGLARVFKVDNEDIYESRHEIKLPVKWTAPEAIRSNKFSIKSDVWSFG  
ILLYEIITYGKMPYSGMTGAQVIQMLAQNYRLPQPSNCPQQFYINIMLECWNAEPKERPTFETLRWKLEDY  
FETDSSYSYDANNFIR

>gi|13242263|ref|NP\_077344.1| fyn-related kinase [Rattus norvegicus]  
MGSVCMRLWAYLQPFPLPCWSQEADKSVVIENPGAYCPPEANRSQGYFVALFDYEARTAEDLSFHAGDKL  
QVLDTSHEGWVWARHLEKKGPGGLGQQLQGYIPSNYVAEDRSLQAEPWFFGAIKRADAQKQLLYSENQTGA  
FLIRESESQKGFSLSVLDGAVVKHYRIKRLDEGGFFLTRRKTFTSTLNEFVNYTTTSDGLCVKLEKPCPK  
KIQVPTPFDLSYKTVDQWEIDRNSIQLLKRLGSGQFGEVWEGWGLWNNTTPVAVKTLKPGSMDPNDFLREAQ  
IMKSLRHPKLIQLYAVCTLEDPIYIITELMRHGSQLEYLQNDGGSKIRLTQQVDMAAQVAGSMAYLESQN  
YIHRDLAARNVLVGEHNIYKVADFGLARVFKVDNEDIYESKHEIKLPVKWTAPEAIRTNKFSIKSDVWSF  
GILLYEIITYGKMPYSGMTGAQVIHMLGQNYRLPQPSNCPQFYISIMMECWNVPEKQRPTFETLHWKLEDY  
YFEPDSSYSYDANNFIN

>gi|51467899|ref|NP\_001003837.1| protein-tyrosine kinase [Danio rerio]  
MGVVKSKPKELGQRSRLDDGTGGHHHTPNFTSFTPNRSPPEVGSRRGTQPNINAEQALFGGVNSTTN  
SITSPNRIGILGGVTTFVALYDYESRTASDLSFRKGERLQIVNTEGDWWLARSLLTTGESGYIPSNYVAP  
SDSIQAEWYFGKITRRDSERLNLENRRGTFVRESETTKGAAYCLSVLDYDNVKGKLVKHYKIRKLDSD  
GGFYITSRTQFSTLQQLVNHYRQHADGLCHSLTDVCPVLKPPTQGLARDAWEIPRDSLRLDVKLGQCGFG  
EVWMGTWNGTTRVAIKTLKPGTMSPEAFLEAQAQVMKLRHEKLVQLYAVVSEEPYIYIVTEYMGQGSLLDF  
LKGDMGKMLRPLQVDMASQIASGMAYVERMNYVHRDLRAANILVGDNLVCKVADFGLARLIEDNEYTAR  
QGAKFPIKWTAPEAALYGRFTTIKSDVWSFGILLTELTTKGRVPPYGMVNVREVLQVERGYRMPCPAECPD  
SLHEMLMTCWRKEPEERPTFEYLQGFLEDYFTSTEPQYQPGENL

>gi|13540677|ref|NP\_110484.1| Yamaguchi sarcoma viral (v-yes-1) oncogene homolog  
[Rattus norvegicus]  
MGCIKSKRKNLNDGDVDMKTQPVRRNTDRTIYVRDPTS NKQQRVPPESQLLPQRFQAKDPEEQGDIVVA  
LYPYDGIHPDDL SFKKGEKMKVLEEHGEWVKAKSLSSKREGFIPSNYVAKVNTLETEEWFVKDITRKDAE  
RQLLAPGNSAGAFIRESETLKGSFSLSVRDYDPMHGDVIKHYKIRSLDNGGYYISPRITFPCISDMIKH  
YQKQSDGLCRRLEKACISPKPQKPWDKDAWEIPRESIKLVKKGAGQFGEVWVGYYHNSKTVAVKTLKPG  
TMSAQAFLEENLMKTLQHDKLVRLYAVVTKEEPYIYIITEFMAKGSLLDFLKSDEGSKVLLPKLIDFSAQ  
IAEGMAYIERKNYIHRDLAARNVLVSESLMCKIADFLARVIEDNEYTAREGAKFPIKWTAPEAINFGCF  
TIKSDVWSFGILLYEIVTYGKIPYPRGTNADVMTALSQGYRMPRMENCPELYDIMKMCWKESSAEERPTF

DYLQSVLDDFYTATEGQYQQQP

>gi|30795229|ref|NP\_002101.2| hemopoietic cell kinase isoform p61HCK [Homo sapiens]

MGGRSSCEDPGCPRDEERAPRMGCMKSKFLQVGGNTFSKTETSASPHCPVYVPDPTSTIKPGPNSHNSNT  
PGIREAGSEDIIVVALYDYEAIHHEDLSFQKGDQMVVLEESGEWVKARSLATRKEGYIPSNYVARVDSLE  
TEEWFFKGISRKDAERQLLAPGNMLGSFMIRDSETTKGSYLSVRDYDPRQGD TVKHYKIRTLDNNGFYI  
SPRSTFSTLQELVDHYKKGNDGLCQKLSVPCMSKPKPWEKDAWEIPRESLKLKLEKKGAGQFGEVWMT  
YNKHTKVAVKTMKPGSMSVEAFLAEANVMKTLQHDKLVKLHAVVTKEPIYIITEFMAKGSLLDFLKSDEG  
SKQPLPKLIDFSAQIAEGMAFIEQRNYIHRDLRAANILVSASLVCKIADFGLARVIEDNEYTAREGAKFP  
IKWTAPEAINFGSFTIKSDVWSFGILLMEIVTYGRIPYPGMSNPEVIRALERGYRMPRENCPEELYNIM  
MRCWKNRPEERPTFEYIQSVLDDFYTATESQYQQQP

>gi|33859588|ref|NP\_034877.1| Yamaguchi sarcoma viral (v-yes-1) oncogene homolog [Mus musculus]

MGCIKSKRKDNLDNDEVDSTQPVPEFHLLPGQRFQTKDPEEQGDIVVALYPYDGIHPDDL SFKKGEKMK  
VLEEHGEWVKAKSLSSKREGFIPSNYVAKVNTLETEEWFFKDITRKDSERQLLAPGNSAGAF LIRESETL  
KGSFSLSVRDYDPMHGDV IKHYKIRSLDNNGYYISPRITFPCISDMIKHYQKQSDGLCRRLEKACISPKP  
QKPWKDAWEIPRESIKLVKKGAGQFGEVWVGYYNNSTKVAVKTLKPGTMSVQAFLEEANLMKTLQHDK  
LVRLYAVVTKEEPIYIITEFMAKGSLLDFLKSDEGGKVL LPKLIDFSAQIAEGMAYIERKNYIHRDLRAA  
NVLVSESLMCKIADFGLARVIEDNEYTAREGAKFPIKWTAPEAINFGCFTIKSDVWSFGILLYEIVTYGK  
IPYPGRTNADVMSALSQGYRMPRENCPEDELYDIMKMCWKEKAQERPTFDYLQSVLDDFYTATEGHYQQP  
P

>gi|4505055|ref|NP\_002341.1| v-yes-1 Yamaguchi sarcoma viral related oncogene homolog [Homo sapiens]

MGCIKSKGKDSLSDDGVDLKTQPVVNTERTIYVRDPTSNKQQRVPVPESQLLPGQRFQTKDPEEQGDIVVA  
LYPYDGIHPDDL SFKKGEKMKVLEEHGEWVKAKSL LTKKEGFIPSNYVAKLNTLETEEWFFKDITRKDAE  
RQLLAPGNSAGAF LIRESETLKG SFSLSVRDFDPVHGDV IKHYKIRSLDNNGYYISPRITFPCISDMIKH  
YQKQADGLCRRLEKACISPKPQKPWKDAWEIPRESIKLVKRLGAGQFGEVWVGYYNNSTKVAVKTLKPG  
TMSVQAFLEEANLMKTLQHDKLVRLYAVVTRE EPIYIITEYMAKGSLLDFLKSDEGGKVL LPKLIDFSAQ  
IAEGMAYIERKNYIHRDLRAANLVSESLMCKIADFGLARVIEDNEYTAREGAKFPIKWTAPEAINFGCF  
TIKSDVWSFGILLYEIVTYGKIPYPGRTNADVMTALSQGYRMPRENCPEDELYDIMKMCWKEKAEERPTF  
DYLQSVLDDFYTATEGQYQQQP

>gi|56118779|ref|NP\_001008186.1| yes1-prov protein [Xenopus tropicalis]

MGCIKSKEDKGPSIKYRTEPKPDSGSQYGGDPTQATQSPGIKGPAPNFNSHSMT PFGGSSGITPFGGASS  
IFSPTVPYPGGLTGGVTVFVALYDYEARTTEDLSFRKGERFQIINNTEGDWWEARS IATGKTGYIPSNY  
VAPADSIQAE EWYFGKMGRKDAERLLL NPGNQRTFLVRESETTKGAYSL SIRDWDEVRGD NVKHYKIRK  
LDNNGYYITTRAQFESLQKLVKHYSEHADGLCYRLTTVCPTVKPQTQGLSKDAWEIPRESLR LDKLQGG  
CFGEVWIGTWNGTTKVAIKTLKPGTMMPEAFLQEAQIMKCLRHDKLVPLYAVVSE EPIYIVTEYMTKGS  
LDFLKEGDGKYLKLPQLVDMAAQIADGMAYIERMNYIHRDLRAANILVGDNLVCKIADFGLARLIEDNEY  
TARQGA KFP IKWTAPEAAALYGRFTIKSDVWSFGILLTELVTKGRVPYPGMVNREVLEQVERGYRMPCPQG  
CPESLHELMLKLCWKKDPDERPTFEYIQSFLEDYFTATEPQYQPGDNL

>gi|4503823|ref|NP\_002028.1| protein-tyrosine kinase fyn isoform a [Homo sapiens]

MGCVCCKDKEATKLTEERDGS LNQSSGYRYGTDPTQHYPSFGVTSIPNYNNFHAAGGQGLTVFGGVNS  
SHTGTLRTRGGTGVTLFVALYDYEARTEDDLSFHKGEKFQILNSSEG DWWEARSLTTGETGYIPSNYVAP  
VDSIQAE EWYFGKLGKDAERQLLSFGNPRGTF LIRESETTKGAYSL SIRDWDDMKGDHVKHYKIRKLDN  
GGYYITTRAQFETLQQLVQHYSERAAGLCCRLVVPCHKGM PRLTDL SVKTKDVWEIPRESLQLIKRLGNG  
QFGEVWMTWNGNTKVAIKTLKPGTMSPE SFLEEAQIMKCLKHDKLVQLYAVVSE EPIYIVTEYMNKGS  
LDFLKDGEGRALKLPNLVDMAAQVAAGMAYIERMNYIHRDLRSANILVGNGLICKIADFGLARLIEDNEY  
TARQGA KFP IKWTAPEAAALYGRFTIKSDVWSFGILLTELVTKGRVPYPGMNNREVLEQVERGYRMPCPQD  
CPI SLHELMIHCWKKDPDERPTFEYLQSFLEDYFTATEPQYQPGENL

>gi|45385807|ref|NP\_990632.1| proto-oncogene tyrosine-protein kinase YES [Gallus gallus]

MGCIKSKEDKGPAMKYRTDNTPEPISSHVSHYGS DSSQATQSPA IKGSAVNFN SHSMT PFGGSGMTPFG  
GASSFS SAVSPYPSTLTGGVTVFVALYDYEARTDDLSFKKGERFQIINNTEGDWWEARS IATGKTGYI  
PSNYVAPADSIQAE EWYFGKMGRKDAERLLL NPGNQRTFLVRESETTKGAYSL SIRDWDEVRGD NVKHY  
KIRKLDNNGYYITTRAQFESLQKLVKHYREHADGLCHKLTTCPTVKPQTQGLAKDAWEIPRESLRLEV K  
LGQGC FGEVWMTWNGTTKVAIKTLKPGTMMPEAFLQEAQIMKCLRHDKLVPLYAVVSE EPIYIVTEFMT

KGSLLDLFLKEGEGKFLKLPQLVDMAAQIADGMAYIERMNYIHRDLRAANILVGDNLVCKIADFGLARLIE  
DNEYTARQGAKFPIKWTAPEAALYGRFTIKSDVWSFGILLTELVTKGRVPYPGMVNREVLEQVERGYRMP  
CPQGCPESELHELMKLCWKKDPDERPTFEYIQSFLEDYFTATEPQYQPGDNL

>gi|58332784|ref|NP\_001011413.1| c-src tyrosine kinase [Xenopus tropicalis]  
MGATKSKPREGGPRSRSLDIAEGSHQPFTSLSASQTPSKSLDSHRQPAQPFGGNCDLTPFGGVNFSDTIT  
SPQRIGPLAGGVTTFFVALYDYESRTETDLSFKKGERLQIVNNTTEGDWLLARSLSSGQTGYIPSNYVAPSD  
SIQAEWYLKGITRREAERLLLLENPRGTFLVRESETTKGAYCLSVSDYDANRGLNVKHYKIRKLDSSG  
FYITSRTQFSSLQQLVAYYSKHADGLCHRLTTVCPTAKPQTQGLSKDAWEIPRDSLRLLEKLGQCGFEV  
WMGTWNGTTRVAIKTLKPGTMSPEAFLOEAQVMKLRHEKLVQLYAVVSEEPYIYIVTEYMSKGSLLDFLK  
GEMGRYLRLPQLVDMAAQIASGMAYVERMNYVHRDLRAANILVGENLVCKVADFGLARLIEDNEYTARQG  
AKFPIKWTAPEAALYGRFTIKSDVWSFGILLTELTTKGRVPYPGMVNREVLDQVERGYRMPCCPDCPEL  
HDLMCQCWRKDPPEERPTFEYLOAFLEDYFTATEPQYQPGDNL

>gi|47086483|ref|NP\_997946.1| Yes-relayed kinase [Danio rerio]  
MGCACCKQRKASKAVSNQNSCDAFNQTQASEPSRYIPDPTFNSGIPNFNDFSNPLTPPTSIIINPARPPGL  
TGGGVTLFIALYEYDARTEDDLSFQKGEKFHIIINTEGDWWEARSLDTGKSGYIPSNYVAPVDSIQAEW  
YFGKMGKDAERQLLAQNNPRGTFLIRESETTKGAYSLSIRDWDDAKGDHVKHYKIRKLDNGGYYITTRT  
QFDTVQQLVEHYTGSNDGLCCYLTKACPNTPPTMGLGRDAWEIARDTLKLNKRLGQCGFDVWGMWNG  
TTKVAVKTLKPGTMSPEAFLEAQIMKRLRHDKLVQLYAVVSEEPYIYITEFMSQGSLLDFLDGGRNL  
KLPQLVDMAAQIAAGMAYIERMNYIHRDLRAANILVGDGLVCKIADFGLARLIEDNEYTARQGAKFPIKW  
TAPEAALYGRFTIKSDVWSFGILLTELITKGRVPYPGMVNREVLEQVERGYRMPCCPQSPASLHEMLQC  
WRKDPDERHTFEYLOAFLEDYFTATEPQYQPGENL

>gi|33469982|ref|NP\_001706.2| B lymphoid tyrosine kinase [Homo sapiens]  
MGLVSSKPKDKEKPIKEKDKGQWSPLKVSAQDKDAPPLPPLVFNHLTPPPPDEHLDEDKHFVVALYDYT  
AMNDRDLQMLKGEKLVKGTGDWLLARSLVTGREGYVPSNFVARVESLEMERWFFRSQGRKEAERQLLA  
PINKAGSFLIRESETNKGAFSLSVKDVTTQGELIKHYKIRCLDEGGYYISPRITFPSLQALVQHYSKKGD  
GLCQRLTLPQVRPAPQNPWAQDEWEIPRQSLRLVRKLGSGQFGEVWVMGYKNNMKVAIKTLKEGTMSPEA  
FLGEANVMKALQHERLVRLYAVVTKEPIYIVTEYMARGCLLDFLKTDEGSRLSLPRLIDMSAQIAEGMAY  
IERMNSIHRDLRAANILVSEALCCKIADFGLARLIDSEYTAQEGAKFPIKWTAPEAIHFGVFTIKADVWS  
FGVLLMEVVTYGRVPYPGMSNPEVIRNLERGYRMPRPDTCPELYRGVIAECWRSRPEERPTFEFLQSVL  
EDFYTATERQYELQP

>gi|6978863|ref|NP\_036887.1| fyn proto-oncogene [Rattus norvegicus]  
MGCVCCKDKEAAKLTEERDGSLNQSSGYRYGTDPTPQHYPSTGVTSPNYNNFHAAGGQGLTVFGGVNS  
SHTGTLRTRGGTGVTLFVALYDYEARTEDDLSFHKGEKFQILNSSEGDDWWEARSLTTGETGYIPSNYVAP  
VDSIQAEWYFGKLRKDAERQLLSFGNPRGTFLIRESETTKGAYSLSIRDWDDMKGDHVKHYKIRKLDN  
GGYYITTRAQFETLQQLVQHYSERAAAGLCCRLVVPCHKGMPRLTDLVSKTKDVWEIPRESLQLIKRLGNG  
QFGEVWMTWNGTKVAIKTLKPGTMSPEFLEEAQIMKCLKHDKLVQLYAVVSEEPYIYIVTEYMNGKSL  
LDFLDKDEGRALKLPNLVDMAQVAAGMAYIERMNYIHRDLRSANILVGNGLICKIADFGLARLIEDNEY  
TARQGAKFPIKWTAPEAALYGRFTIKSDVWSFGILLTELVTKGRVPYPGMVNREVLEQVERGYRMPCCPD  
CPISELHELMHICWKKDPEERPTFEYLOAFLEDYFTATEPQYQPGENL

>gi|38202217|ref|NP\_938033.1| proto-oncogene tyrosine-protein kinase SRC [Homo sapiens]  
MGSNKSXPKDASQRRRSLPEAVNHGAGGAFSPASQTPSKPASADGHRGPSAAAFAPAAAEPKLFGGFNSS  
DTVTSPQRAGPLAGGVTTFFVALYDYESRTETDLSFKKGERLQIVNNTTEGDWLLAHSLSSTGQTGYIPSNYV  
APSDSIQAEWYFGKITRRESERLLLNAENPRGTFLVRESETTKGAYCLSVSDFDNAKGLNVKHYKIRKLD  
DSGGFYITSRTQFNLSLQQLVAYYSKHADGLCHRLTTVCPTSKPQTQGLAKDAWEIPRESLRLEVKLGQGC  
FGEVWMTWNGTTRVAIKTLKPGTMSPEAFLOEAQVMKLRHEKLVQLYAVVSEEPYIYIVTEYMSKGSLL  
DFLKGETGKYLRLPQLVDMAAQIASGMAYVERMNYVHRDLRAANILVGENLVCKVADFGLARLIEDNEYT  
ARQGAKFPIKWTAPEAALYGRFTIKSDVWSFGILLTELTTKGRVPYPGMVNREVLDQVERGYRMPCCPEE  
PESLHDLMCQCWRKEPEERPTFEYLOAFLEDYFTSTEPQYQPGENL

>gi|4885661|ref|NP\_005424.1| viral oncogene yes-1 homolog 1 [Homo sapiens]  
MGCISKENKSPAICYRPENTPEPVSTSVSHYGAEPPTVSPCPSSSAKGTAVNFSSLSMTPFGGSSGVTP  
FGGASSFSVVPSSYPAGLTGGVTIFVALYDYEARTTEDLSFKKGERFQIINTEGDWWEARSIAATGKNG  
YIPSNYVAPADSIQAEWYFGKMGKDAERLLLNPNGRQGIIFLVRESETTKGAYSLSIRDWDEIRGDNVK  
HYKIRKLDNGGYYITTRAQFDTLQKLVKHYTEHADGLCHKLTTVCPTVKPQTQGLAKDAWEIPRESLRLE  
VKLGQCGFGEVWMTWNGTTKVAIKTLKPGTMMPEAFLOEAQIMKCLKHDKLVPLYAVVSEEPYIYIVTEF  
MSKGSLLDFLKEGDGKYLKLPQLVDMAAQIADGMAYIERMNYIHRDLRAANILVGENLVCKIADFGLARL  
IEDNEYTARQGAKFPIKWTAPEAALYGRFTIKSDVWSFGILQTELVTKGRVPYPGMVNREVLEQVERGYR

MPCPQGCPESLHELMNLCWKKDPDERPTFEYIQSFLEDYFTATEPQYQPGENL

>gi|57089855|ref|XP\_547654.1| PREDICTED: similar to Proto-oncogene tyrosine-protein kinase YES (p61-YES) (C-YES) [Canis familiaris]

MGCIKSKENKSPTIKYRTENTAEPVSTSVSHYGTEHTAVAPSSSTKGASVNFSSLSMTPFGGSSGVTFFG  
GASSSFSVVPSSYPAGLTGGVTIFVALYDYEARTTEDLSFKKGERFQIINNTEGDWWEARS IATGKNGYI  
PSNYVAPADSIQAEWEYFGKMGKDAERLLLNPNGRQIGIFLVRESETTKGAYSLSIRDWDEVGRDNDVKHY  
KIRKLDNNGYYITTRAQFDTLQKLVKHYTEHADGLCHKLTTVCPTVKPQTQGLAKDAWEIPRESLRLEVK  
LGQGCFFGEVWMTWNGTTKVAIKTLKPGTMMPEAFLQEAQIMKKLRHDKLVPLYAVVSEEPYIYIVTEFMS  
KGSLLDFLKEGDGKYLKLPQLVDMAAQIADGMAYIERMNYIHRDLRAANILVGENLVCKIADFGFLARLIE  
DNEYTARQGAQFPIKWTAPEAALYGRFTIKSDVWSFGILQTELVTKGRVPYPMGMVNREVLEQVERGYRMP  
CPQGCPELHELMNLCWKKDPDERPTFEYIQSFLEDYFTATEPQYQPGENL

>gi|25150323|ref|NP\_490866.2| SRC oncogene related (60.7 kD) (src-1)  
[Caenorhabditis elegans]

MGCLFSKERRSGGSDMGVSRIDVSRFQTPQQQTVFHVNNNGNEGTSIQLNGTSDGMMGNRGGGGGGGA  
QERETLVALYPYDSRADGDLDFQKGDAMYLLDHSNCDWYVRHQRTGQTGYVPRNFVAKQQTIESEEWYA  
GKIPRNRARLVLSSHLKPGTFLIREREADTREFALTIRDTDDQRNGGTVKHYKIKRLDHDQGYFITTRR  
TFRSLQELVRYSDVPDGLCCQLTFPAPRLAPTRPDLSDHTQQNWEIPRNQLHLKRKLDGDNFGEVWYK  
WRGIVEVAIKTMKPGTMSPEAFLQEAQIMKQCDHPNLVKLYAVCTREEPFYIITEYMINGSLLQYLRTDG  
STLGIQALVDMAAQIANGMMYLEERKLVHRDLAARNVLVGDKISGVPVVKVADFLARKLMEEDIYEART  
GAKFPIKWTAPEAATCGNFTVKSVDWSYGILLYEIMTKGQVPYPMGMHNREVVEQVELGYRMPMPRGCP  
IYEEVLLKCKWDKTPDRRPTFDLTYHFFDDYFVSTQPNYAPPSA

>gi|31982490|ref|NP\_031575.2| B lymphoid kinase [Mus musculus]

MGLLSSKRQVSEKGGWSPVKIRTQDKAPPPLPPLVFNHLAPPSPNQDPDEEERFVVALFDYAAVNDRD  
LQVLKGEKLVLRSTGDWLLARSLVTGREGYVPSNFVAPVETLEVEKWFRTISRKDAERQLLAPMNKAG  
SFLIRESESNKGAFSLSVKDIITTOGEVVKHYKIRSLDNGGYYISPRITFPTLQALVQHYSKKGDLGCKL  
TLPCVNLPAKPNLWADWEIIPRQSLKLVKLGSGQFGEVWMMGYKNNMKVAIKTLKEGTMSPEAFLGEAN  
VMKTLQHERLVRLYAVVTREPIYIVTEYMARGCLLDFLKTDEGSRLSLPRLIDMSAQVAEGMAYIERMNS  
IHRDLRAANILVSETLCKIADFGFLARIIDSEYTAQEGAKFPIKWTAPEAIIHFGVFTIKADVWSFGVLLM  
EIVTYGRVPYPMGMNSPEVIRSLEHGMRPCPETCPPELYNDIITECWRGRPEERPTFEFLQSVLEDFYTA  
TEGQYELQP

>gi|6678617|ref|NP\_033561.1| viral oncogene yes homolog [Mus musculus]

MGCIKSKENKSPAICYTPENLTPVSPSASHYGVHATVAPTSSTKGASVNFNSLSMTPFGGSSGVTFFG  
GASSSFSVSSSYPTGLTGGVTIFVALYDYEARTTEDLSFKKGERFQIINNTEGDWWEARS IATGKSGYI  
PSNYVVPADSIQAEWEYFGKMGKDAERLLLNPNGRQIGIFLVRESETTKGAYSLSIRDWDEVGRDNDVKHY  
KIRKLDNNGYYITTRAQFDTLQKLVKHYTEHADGLCHKLTTVCPTVKPQTQGLAKDAWEIPRESLRLEVK  
LGQGCFFGEVWMTWNGTTKVAIKTLKPGTMMPEAFLQEAQIMKKLRHDKLVPLYAVVSEEPYIYIVTEFMS  
KGSLLDFLKEGDGKYLKLPQLVDMAAQIADGMAYIERMNYIHRDLRAANILVGENLICKIADFGFLARLIE  
DNEYTARQGAQFPIKWTAPEAALYGRFTIKSDVWSFGILQTELVTKGRVPYPMGMVNREVLEQVERGYRMP  
CPQGCPELHELMNLCWKKDPDERPTFEYIQSFLEDYFTATEPQYQPGENL

>gi|9626157|ref|NP\_040506.1| p30 gag-yes protein [Y73 sarcoma virus]

MEAVIKVISSACKTYCGKTSKKEIGAMLSLLQKEGLLMSPSDLYSPGSWDPITAALSQRAMVLGKSGE  
LKTWGLVLGALKAAAREEQVTSEQAKFWLGLGGGRVSPPGPECIEKPATERRIDKGEEVGETTVQRDAKMA  
PEETATPKTVGTSCYHCGTASGCNCATATASAPPPYVGSGLCPSLAGVGEQRKRGDTPRGAEQPRAE  
RHTGLTLGPARSARLPPAPLPSLPLPPFPPRVAAPVGGAGAPLPSLSPSFFHPRRRGRAEATVGC  
KSKEDKGPAMKYRTDNTPEPISSHVSHYGSDDSSQATQSPAIKGSVNFNSHSMTPFGGPSGMTPFGGASS  
SFSAVPSPYPSTLTGGGTVFVALYDYEARTTDDLDFKGGGERFQIINNTEGDWWEARS IATGKTGYIPSNY  
VAPADSIQAEWEYFGKMGKDAERLLLNPNGRQIGIFLVRESETTKGAYSLSIRDWDEVGRDNDVKHYKIRK  
LDNNGYYITTRAQFESLQKLVKHSREHADGLCHKLTTVCPTVKPQTQGLAKDAWEIPRESLRLEVKLGQG  
CFGEVWMTWNGTTKVAIKTLKLGTMPEAFLQEAQIMKKLRHDKLVPLYAVVSEEPYIYIVTEFMTKGS  
LDFLKEGEGKFLKLPQLVDMAAQIADGMAYIERMNYIHRDLRAANILVGDNLVCKIADFGFLARLIEDNEY  
TARQGAQFPIKWTAPEAALYGRFTIKSDVWSFGILLTELVTKGRVPYPMGMVNREVLEQVERGYRMP  
CPQGCPELHELMNLCWKKDPDERPTFEYIQSFLEDYFTAAEPSGY

>gi|9626200|ref|NP\_056888.1| p60 src [Rous sarcoma virus]

MGSSKSKPKDPSQRRHSLEPPDSTHHGGFPASQTPDETAAPDAHRNPSRSFGTVATEPKLFWGFNTSDTV  
TSPQRAGALAGGVTTFVALYDYESWTETDLDFKGGGERLQIVNNTTEGDWLLAHSLLTGTGYIPSNYVAPS  
DSIQAEWEYFGKITRRESERLLLNPENPRGTFLVRKSETAKGAYCLSVSDFDNAKGNVVKHYKIYKLYSG  
GFYITSRQTQFGLQQLVAYYSKHADGLCHRLANVCPTSKPQTQGLAKDAWEIPRESLRLEAKLGQGCFFGE

VVMGTWNDTTRVAIKTLKPGTMSPEAFLOEAQVMKKLRHEKLVQLYAVVSEEPYIVIEYMSKGSLLDFL  
KGEMGKYLRLPQLVDMAAQIASGMAYVERMNYVHRDLRAANILVGENLVCKVADDFGLARLIEDNEYTARQ  
GAKFPIKWTAPEAALYGRFTTIKSDVWSFGILLTELTTKGRVPYPGMVNREVLDQVERGYRMPCCPECPES  
HDLMCQCWRKDPEERPTFKYLQAQLLPACVLEVAE

>gi|40796163|ref|NP\_955616.1| pp60 SRC [Rous sarcoma virus]  
GSSKSKPKDPSQRRHSLEPPDSTHHGGFPASQTPDETAAPDAHRNPSRSFQTVATEPKLFWGFNTSDTVT  
SPQRAGALAGGVTTFFVALYDYESWTETDLSFKKGERLQIVNNTTEGDWLLAHSLLTGTGYIPSNYVAPSD  
SIQAEWYFGKITRRESERLLLNPENPRGTFLVRKSETAKGAYCLSVSDFDNAKGNVVKHYKIYKLYSGG  
FYITSRTQFGSLQQLVAYYSKHADGLCHRLANVCPTSKPQTQGLAKDAWEIPRESLRLEAKLGQCFGEV  
WMGTWNDTTRVAIKTLKPGTMSPEAFLOEAQVMKKLRHEKLVQLYAVVSEEPYIVIEYMSKGSLLDFL  
KGEMGKYLRLPQLVDMAAQIASGMAYVERMNYVHRDLRAANILVGENLVCKVADDFGLARLIEDNEYTARQ  
GAKFPIKWTAPEAALYGRFTTIKSDVWSFGILLTELTTKGRVPYPGMVNREVLDQVERGYRMPCCPECPESL  
HDLMCQCWRKDPEERPTFKYLQAQLLPACVLEVAE

>gi|34734058|ref|NP\_037317.2| hemopoietic cell kinase [Rattus norvegicus]  
MGGRSSCEDPGCPRGEGRVPRMGCVKSRFLREGSKASKIEPNANQKGPVYVPDPTSPKKLGPNSINSLPP  
GVVEGSEDTIVVALYDYEAIHREDLSFQKGDQMVVLEESGEWKKARSLATKKEGYIPSNYVARVNSLETE  
EWFVKGISRKDAERHLLAPGNMLGSFMIRDSETTKGSYLSVRDFDPQHGDITVKKYKIRTLDSGGFYISP  
RSTFSSLQELVVHYKKGKDGKLCQKLSVPCVSPKQKPWEKDAWEIPRESLQMEKKGAGQFGEVMMATYN  
KHTKVAVKTMKPGSMSVEAFLAEANLTKLQHDKLVKLHAVVSQEPYIVTEFMAKGSLLDFLKSEEGSK  
QPLPKLIDFSAQISEGMAFIEQRNYIHRDLRAANILVSASLVCKIADDFGLARIEDNEYTAREGAKFPIK  
WTAPEAINFGSFTTIKSDVWSFGILLMEIVTYGRIPYPGMSNPEVIRALEHGYRMPRPDNCPEELYSIMIR  
CWNKRPEERPTFEYIQSVLDDFYTATESQYQQQP

>gi|25147111|ref|NP\_509779.2| related to oncogene ABL (abl-1) [Caenorhabditis  
elegans]  
MIMNCFRERSQKRTKKRAKNRAKSRSTMYLSKVGDSLAMSRLSPVALPMHYLHHKLAESICFITATI  
DSDLEDLVACSSMNSVNNVHDMNTVSSSSSSSAPLFFVALYDFHGVGEEQLSLRKGQVRIILGYNKNEWCE  
ARLYSTRKNDASNQRRLEIGWVPSNFIAPYNSLDKTYTWYHGKISRSDSEAILGSGITGSFLVRESETSI  
GQYTI SVRHDRGVFHYRINVDNTEKMFITQEVKFRTLGEVLVHHHSVHADGLICLLMYPASKKDKGRGLFS  
LSPNAPDEWELDRSEIIMHNKLGQYGDVYEGYWKRDCTIAVKALKEDAMPLHEFLAEAAIMKDLHKK  
NLVRLLVGCTHEAPFYIITEFMCNGNLLLEYLRRTDKSLLPPIILVQMASQIASGMSYLEARHF IHRDLAA  
RNCLVSEHNIVKIADDFGLARFMKEDTYTAHAGAKFPIKWTAPEGLAFNTFSSKSDVWAFGVLLWEIATYG  
MAPYPGVELSNVYGLLENGFRMDGPGCPSVYRLMLQCWNWSPDRPRFRDIHFNLNENLISSNSLNDEV  
QKQLKKNNDKLESDKRRSNVRERSDSKSRHSSHHDRLDRDRESLHSRNSNPEIPNRSFIRTDDSVSFFNP  
STTSKVT SFRAQGPFPFPFPQNTKPKLLKSVLNSNARHASEEFERNEQDDVVPLAEKNVRKAVTRLGGT  
MPKGQRIDAYLDSMRRVDSWKESTDADNEGAGSSSLRTVSNDSLDTLPLPDSMNSSTYVKMHPASGENV  
FLRQIRSKLKKRSETPELDHIDSDTADETTKSEKSPFGSLNKSSIKYPIKNAPEFSENHSRVSPVPVPPS  
RNASVSVRPDSKAEDSSDETTKDVGWGPKHAVTRKIEIVKNDSYPNVEGELKAKIRNLRHVPKEESNTS  
SQEDLPLDATDNTNDSIIVI PRDEKAKVRQLVTQKVSPLQHHRPFSLQCPNNSTSSAISHSSEHADSSETS  
SLSGVYEERMKPELPRKRSNGDTKVVPVTWI INGEKEPNGMARTKSLRDITSKFEQLGTASTIESKIEEA  
VPYREHALEKKGTSKRFSMLEGSNELKHVPPRKNRNQDESGSIDEEPVSMDMIVSLLKVIQKEFVNLFN  
LASSEITDEKLQQFVIMADNVQKLHSTCSVYAEQISPHSKFRFKELLSQLEIYNRQIKFSHNPRAKPVDD  
KLKMAFQDCFDQIMRLVDR

>gi|25147108|ref|NP\_509777.2| related to oncogene ABL (abl-1) [Caenorhabditis  
elegans]  
MGHSHSTGKEINDNELFTCEDPVFDQPVASPKSEISSKLAEEIERSKSPLILEMFRPTFDTFRPPNSDSS  
TFRGSQSREDLVACSSMNSVNNVHDMNTVSSSSSSSAPLFFVALYDFHGVGEEQLSLRKGQVRIILGYNKN  
NEWCEARLYSTRKNDASNQRRLEIGWVPSNFIAPYNSLDKTYTWYHGKISRSDSEAILGSGITGSFLVRE  
SETSIGQYTI SVRHDRGVFHYRINVDNTEKMFITQEVKFRTLGEVLVHHHSVHADGLICLLMYPASKKDKG  
RGLFSLSPNAPDEWELDRSEIIMHNKLGQYGDVYEGYWKRDCTIAVKALKEDAMPLHEFLAEAAIMK  
DLHKKNLVRLLVGCTHEAPFYIITEFMCNGNLLLEYLRRTDKSLLPPIILVQMASQIASGMSYLEARHF I  
RDLAARNCLVSEHNIVKIADDFGLARFMKEDTYTAHAGAKFPIKWTAPEGLAFNTFSSKSDVWAFGVLLWE  
IATYGMAPYPGVELSNVYGLLENGFRMDGPGCPSVYRLMLQCWNWSPDRPRFRDIHFNLNENLISSNS  
LNDEVQKQLKKNNDKLESDKRRSNVRERSDSKSRHSSHHDRLDRDRESLHSRNSNPEIPNRSFIRTDDSV  
SFFNPSTTSKVT SFRAQGPFPFPFPQNTKPKLLKSVLNSNARHASEEFERNEQDDVVPLAEKNVRKAVT  
RLGGTTPKQQRIDAYLDSMRRVDSWKESTDADNEGAGSSSLRTVSNDSLDTLPLPDSMNSSTYVKMHPA  
SGENVFLRQIRSKLKKRSETPELDHIDSDTADETTKSEKSPFGSLNKSSIKYPIKNAPEFSENHSRVSPV  
PVPPSRNASVSVRPDSKAEDSSDETTKDVGWGPKHAVTRKIEIVKNDSYPNVEGELKAKIRNLRHVPKE  
ESNTSSQEDLPLDATDNTNDSIIVI PRDEKAKVRQLVTQKVSPLQHHRPFSLQCPNNSTSSAISHSSEH  
SSETSSLSGVYEERMKPELPRKRSNGDTKVVPVTWI INGEKEPNGMARTKSLRDITSKFEQLGTASTIES

KIEEAVPYREHALEKKGTSKRFSMLEGSNELKHVPPRKNRNQDESGSIDEEPVSKDMIVSLLKVIQKEF  
VNLFNLASSEITDEKLQQFVIMADNVQKLHSTCSVYAEQISPHSKFRFKELLSQLEIYNRQIKFSHNPR  
KPVDDKLMKAFQDCFDQIMRLVDR

>gi|25147104|ref|NP\_509778.2| related to oncogene ABL (138.3 kD) (abl-1)  
[Caenorhabditis elegans]

MGSHSTGKEINDNELFTCEDPVFDQPVASPKSEISSKLAEEIERSKSPLILEVSPRTPDSVQMFRTFD  
TFRPPNSDSSTFRGSQSREDLVACSSMNSVNNVHDMNTVSSSSSSSAPLFVALYDFHGVGEEQLSLRKG  
QVRILGYNKNNNEWCEARLYSTRKNDASNQRRLGEIGWVPSNFIAPYNSLDKYTWYHGKISRSDSEAILGS  
GITGSFLVRESETSIGQYTTISVRHDGRVVFHYRINVDNTEKMFITQEVKFRTLGELVHHHSVHADGLICLL  
MYPASKKDKGRGLFSLSPNAPDEWELDRSEIIMHNKLGQYGDVYEGYWKRDCTIAVKALKEDAMPLH  
EFLAEAAIMKDLHHKNLVRLGCVCTHEAPFYIITEFMCNGNLLLEYLRRTDKSLLPPIILVQMASQIASGM  
SYLEARHFIHRDLAARNCLVSEHNIVKIADFGLARFMKEDTYTAHAGAKFPIKWTAPEGLAFNTFSSKSD  
VWAFGVLLWEIATYGMAPYPGVELSNVYGLLENGFRMDGPQGCPPSVYRLMLQCWNWSPDRPRFRDIHF  
NLENLISSNSLNDDEVQQLKKNNDKKLES DKRRSNVRERSDSKSRHSSHDRDRDRESLHSRNSNPEIPN  
RSFIRTDSDSVFFNPSTTSKVTSFRAQGPFPFPQQNTKPKLLKSVLNSNARHASEEFERNEQDDVVPL  
AEKNVRKAVTRLGGTTPKQRI DAYLDSMRRVDSWKESTADNEGAGSSSLRTVSNDSLDTLPLPDSMN  
SSTYVKMHPASGENVFLRQIRSKLKKRSETPELDHIDSDTADETTKSEKSPFGSLNKSSIKYPIKNAPEF  
SENHSRVSPVPVPPSRNASVSVRPDSKAEDSSDETTKDVGMWGPKHAVTRKIEIVKNDSYPNVEGELKAK  
IRNLRHVPKEESNTSSQEDLPDATDNTNDSIIVI PRDEKAKVRQLVTQKVSPLQHHRPFSLQCPNNSTS  
SAISHSEHADSSSETSSLSGVYEERMKPELPRKRSNGDTKVVPVTWI INGEKEPNGMARTKSLRDITSKFE  
QLGTASTIESKIEEAVPYREHALEKKGTSKRFSMLEGSNELKHVPPRKNRNQDESGSIDEEPVSKDMIV  
SLLKVIQKEFVNLFNLASSEITDEKLQQFVIMADNVQKLHSTCSVYAEQISPHSKFRFKELLSQLEIYNR  
QIKFSHNPRAKPVDDKLMKAFQDCFDQIMRLVDR

>gi|40796142|ref|NP\_955595.1| ABL [Abelson murine leukemia virus]

YITPVNSLEKHSWYHGPVSRNAAEYLLSSGINGSFLVRESESSPGQRSISLRYEGRVYHYRINTASDGKL  
YVSSESFRNTLAELVHHHSTVADGLITTLHYPAKRNKPTIYGVSPNYDKWEMERTDITMKHKLGGGQYG  
EYEGVWKKYSLTVAVKTLKEDTMEVEEFLKEAAMKEIKHPNLVQLLGVCTREPPFYIITEFMTYGNLL  
DYLRECNRQEVSAVLLYMATQISSAMEYLEKKNFIHRDLAARNCLVGENHLVKVADFGLSRLMTGDTYT  
AHAGAKFPIKWTAPESLAYNKFSIKSDVWAFGVLLWEIATYGMSPYPGIDLSQVYELLEKDYRMERPEGC  
PEKVYELMRACQWNPSDRPSFAEIHQAFETMFQESSISDEVEKELGKRGRTRGGAGSMLQAPELPTKTRT  
CRRAAEQKASPPSLTPKLLRRQVTASPSGLSHKKEATKGSASGMGTPATAEPAPPSNKVGLSKASSEEM  
RVRRHKHSSESPGRDKGRLAKLPAPPPPPACTGKAGKPAQSPSQEAGEAGGPTKTKCTSLAMDAVNTDP  
TKAGPPGEGLRKPVPVSPKPKQSTAKPPGTPTSPVSTPSTAPAPSPLAGDQQPSSAAFIPLISTRVSLRK  
TRQPPERIASGTITKGVVLDSTEALCLAI SRNSEQMAHSAVLEAGKNLYTFCVSYVDSIQQMRNKFAFR  
EAINKLESNLRELQICPATASSGPAATQDFSKLLSSVKEISDIVRR