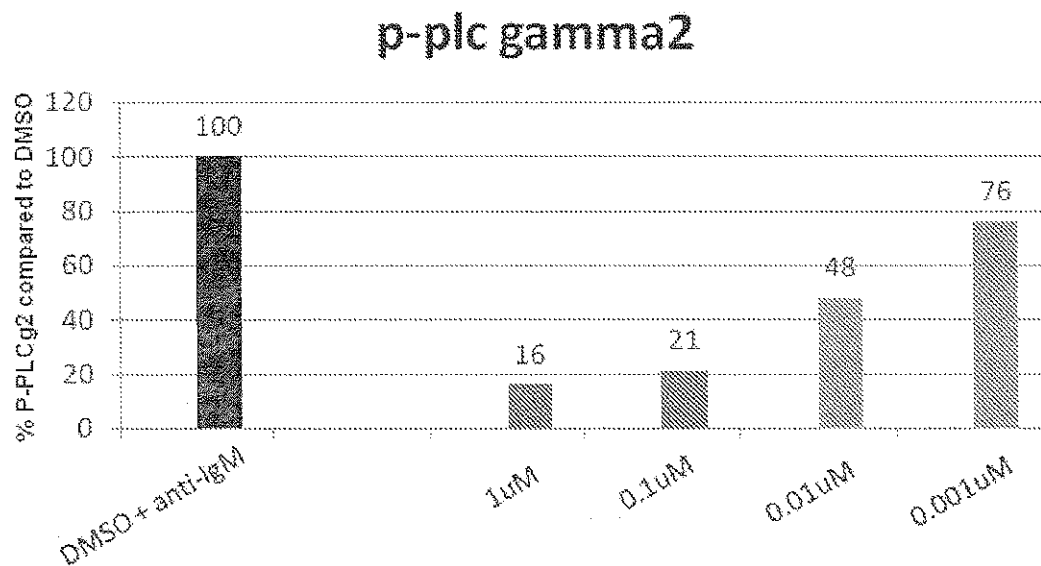


Dose-Response with Compound I-2 in Ramos cells



Washout with 1 μM Compound I-2 in Ramos cells

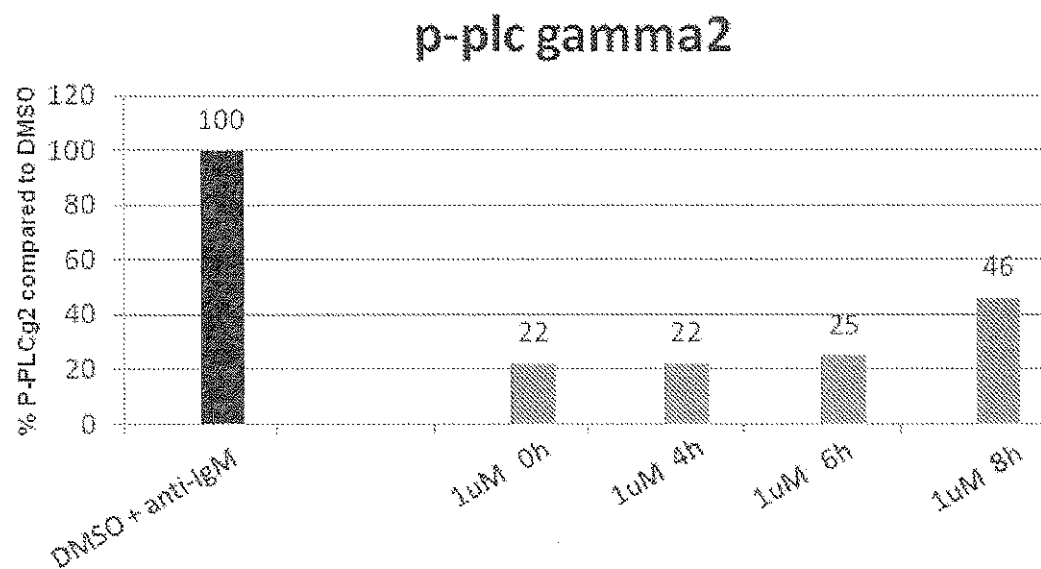


Figure 1

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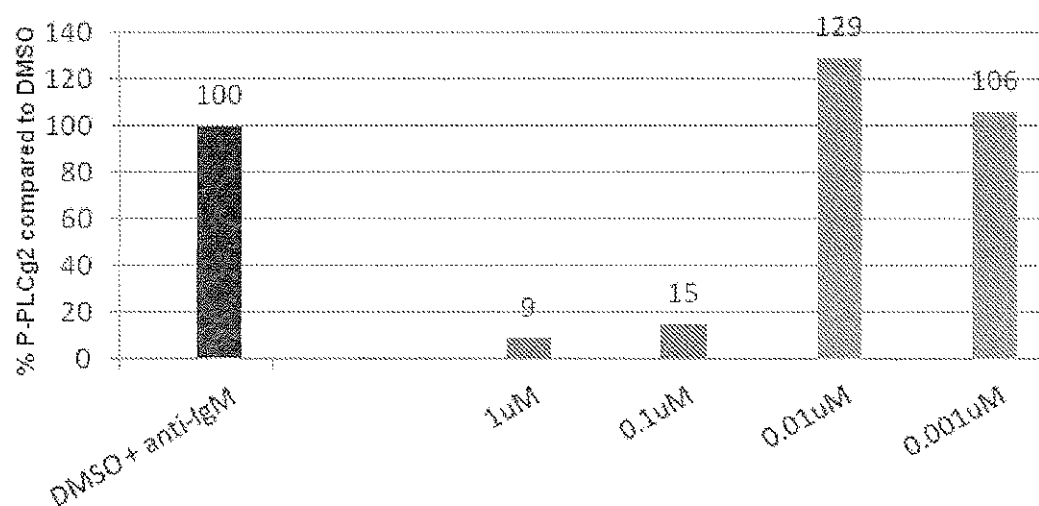
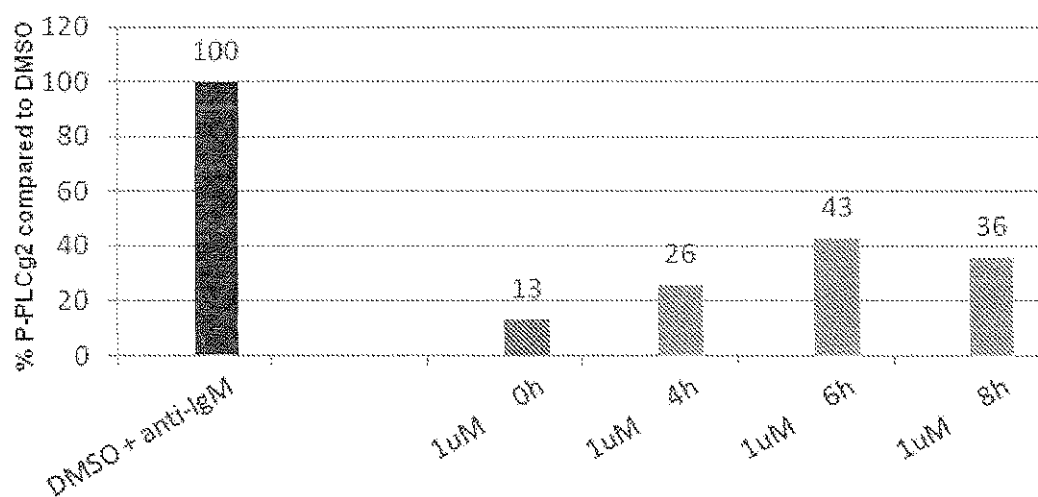
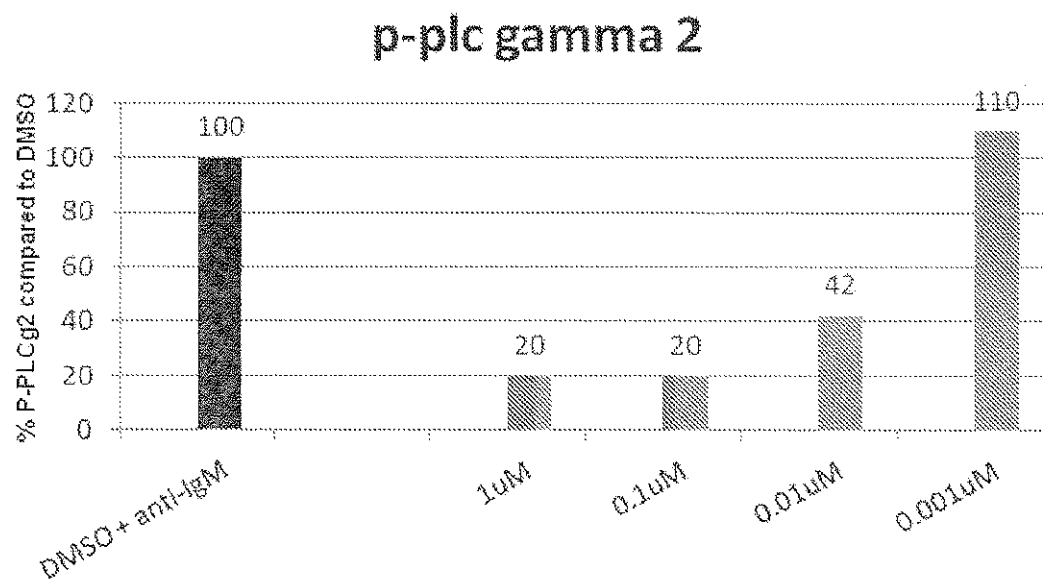
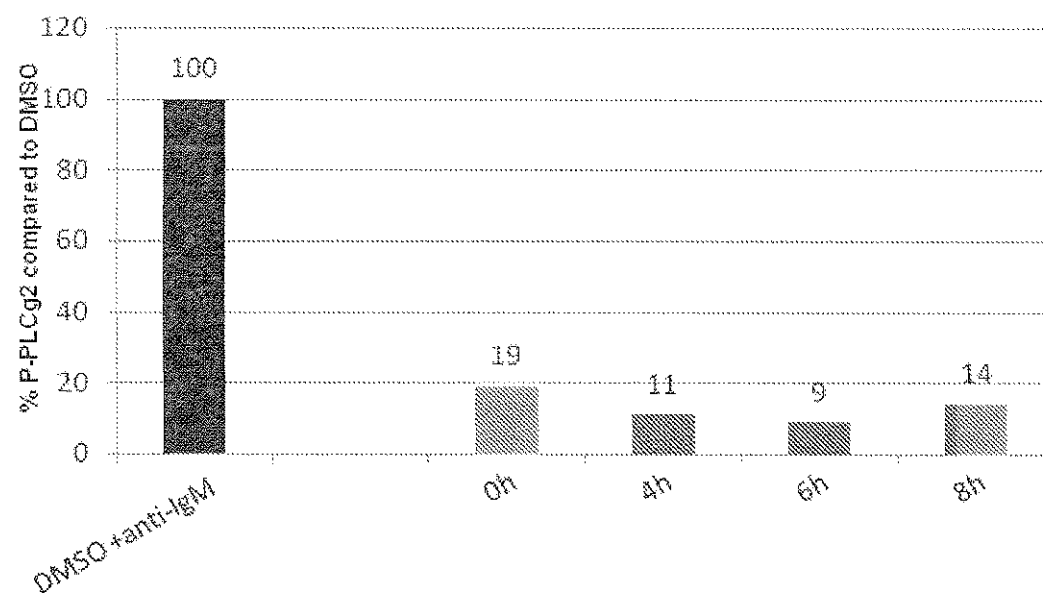
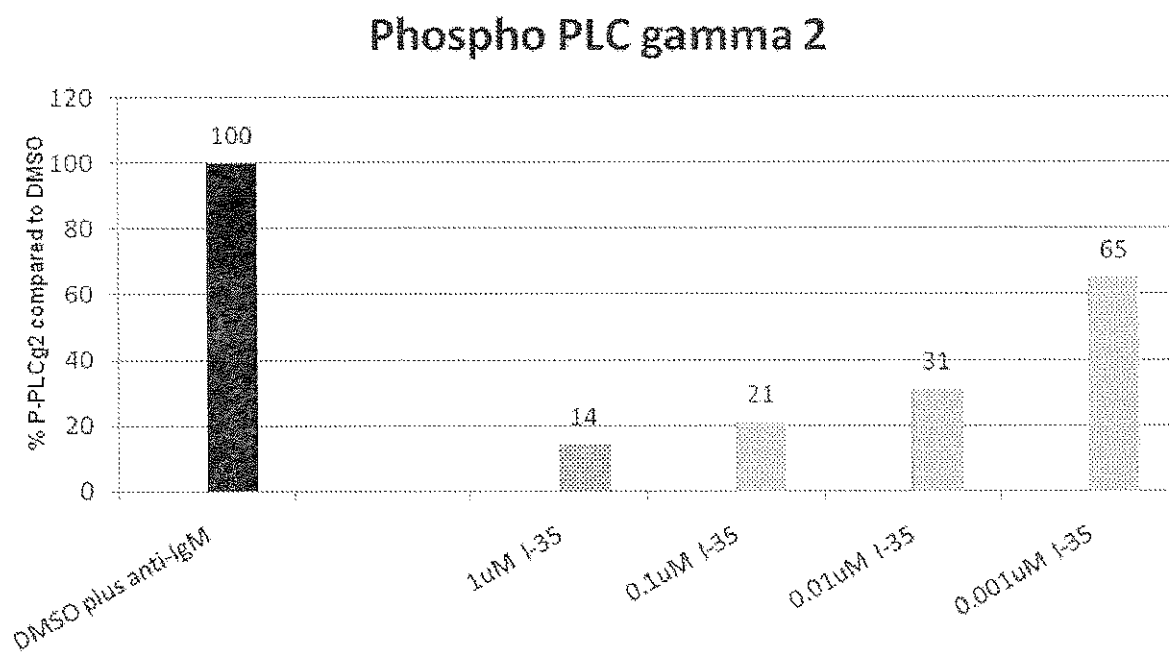
Dose-Response with Compound I-4 in Ramos cells**p-plc gamma 2**Washout with 1 μM Compound I-4 in Ramos cells**p-plc gamma2**

Figure 2

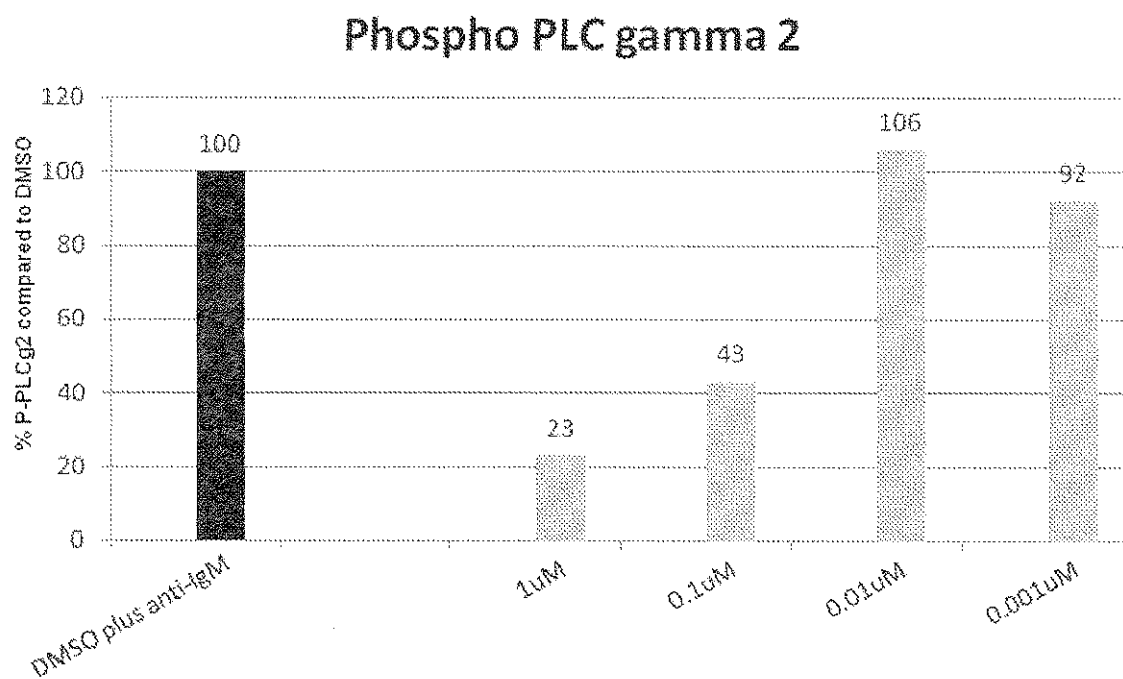
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Dose-Response with Compound I-7 in Ramos cellsWashout Experiment with 1 μM Compound I-7 in Ramos Cells**Figure 3**

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Dose-Response with Compound I-35 in Ramos cells**Figure 4**

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Dose-Response with Compound I-38 in Ramos cells**Figure 5**

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TEC Kinase - Compound I-2 Tryptic Digest Results

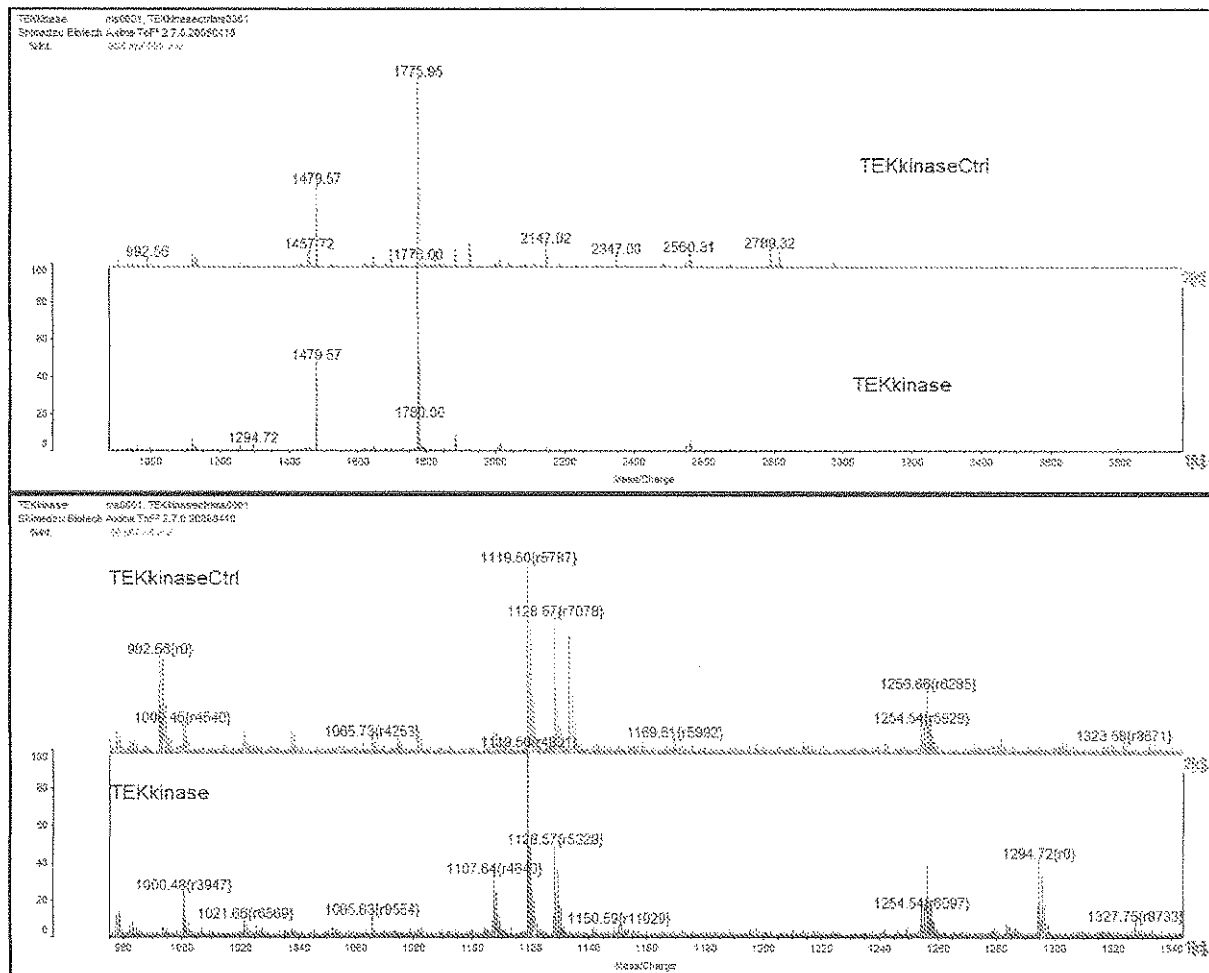
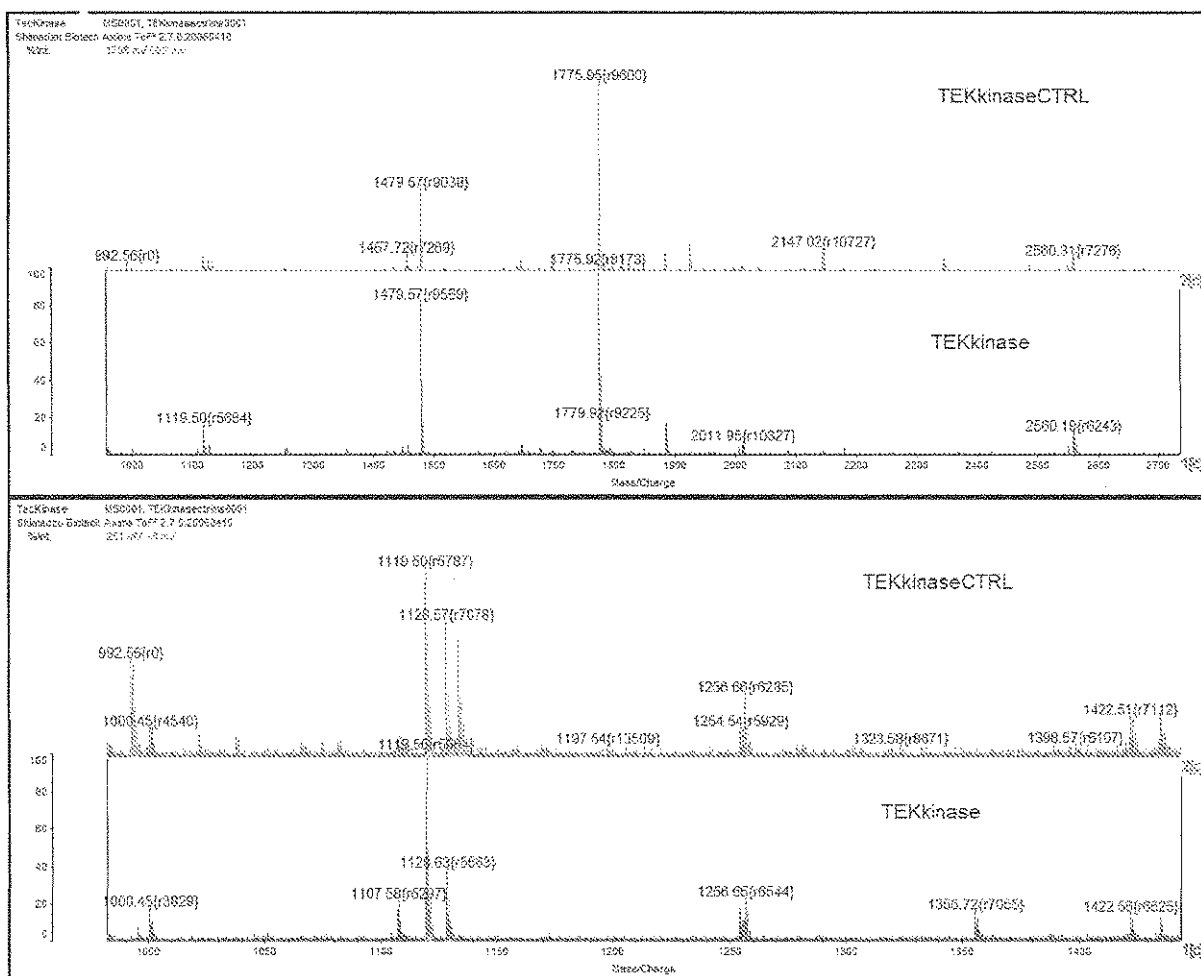


Figure 6

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TEC Kinase - Compound **I-4** Tryptic Digest Results

**Figure 7**

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TEC Kinase - Compound I-7 Tryptic Digest Results

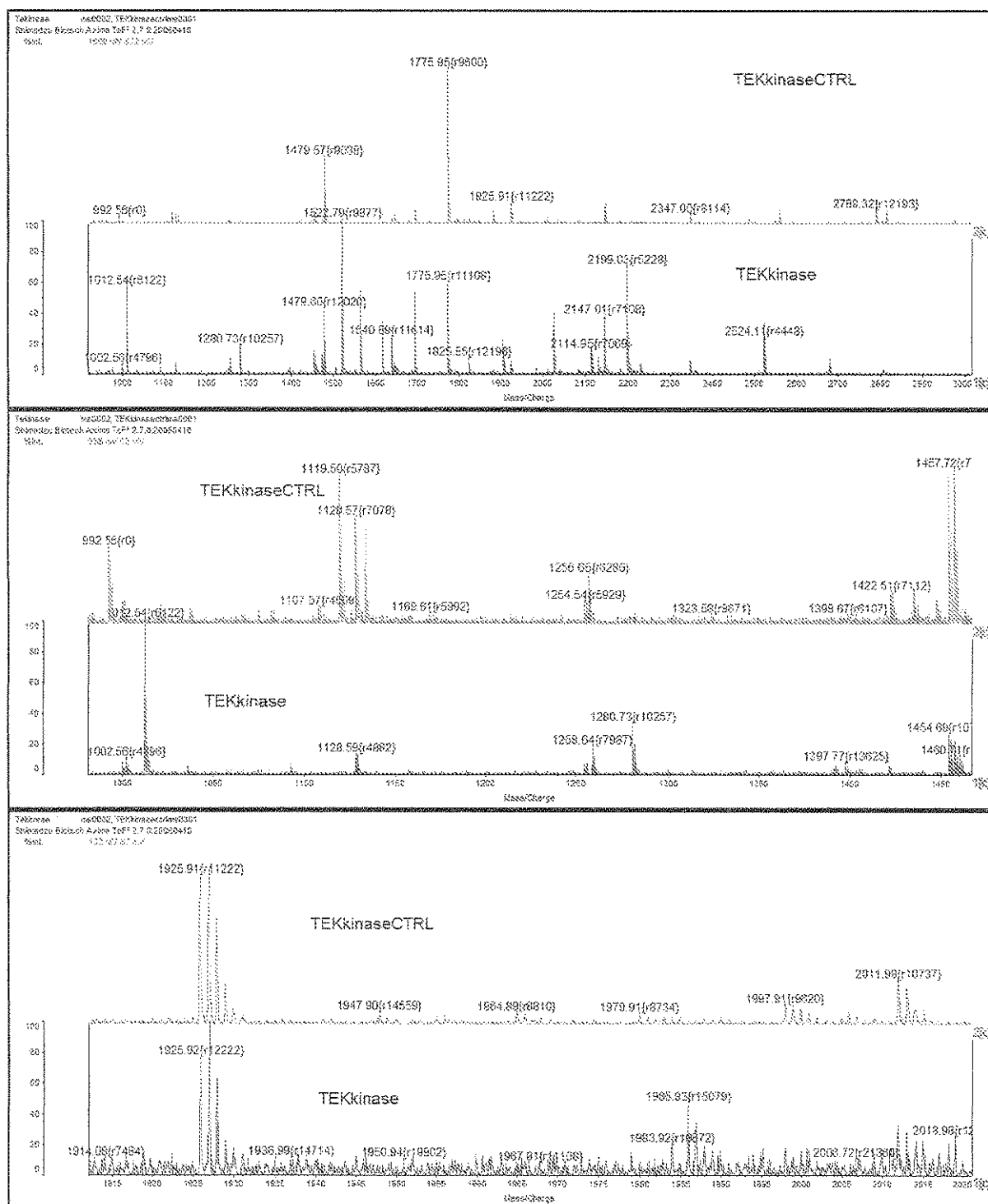


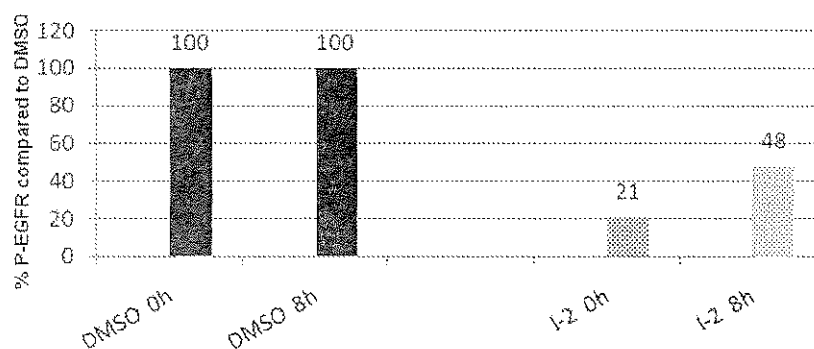
Figure 8

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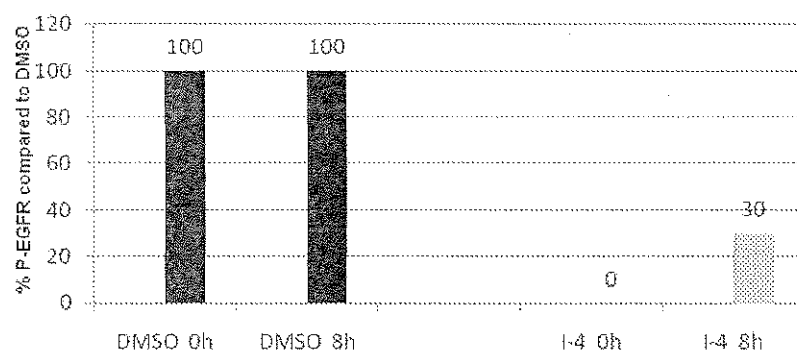
Washout Experiments with Compounds I-2, I-4, and I-7 in HCC827
cells containing EGFR Deletion mutant

**Concentration of compound used is 1 μ M in all cases

Phospho Y1068 EGFR (deletion mutant)



Phospho Y1068 EGFR (deletion mutant)



Phospho Y1068 EGFR (deletion mutant)

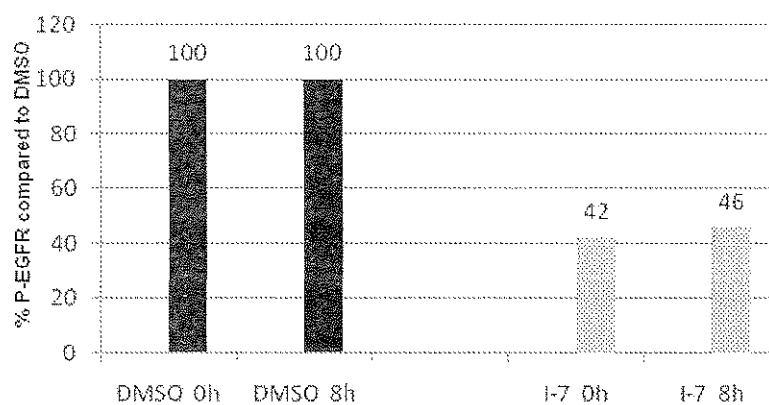


Figure 9

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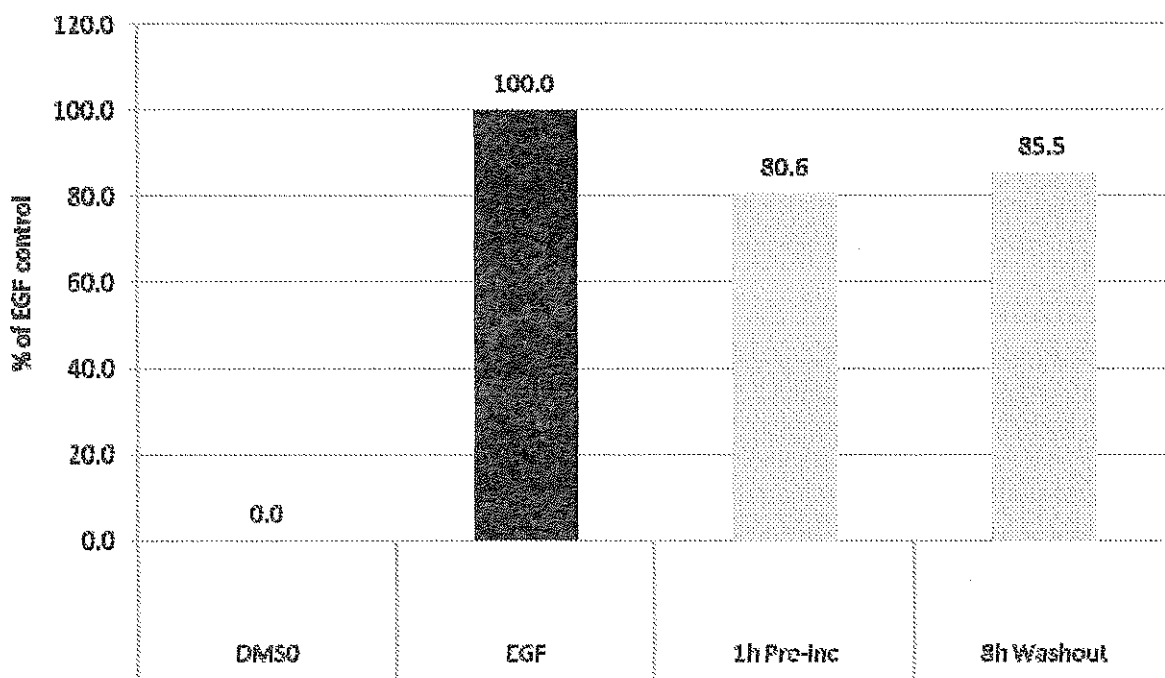
Washout Experiment with 1 μ M Compound I-7 in A431 Cells (EGFR wt)

Figure 10

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JAK3 Kinase – Compound I-7 Tryptic Digest Results

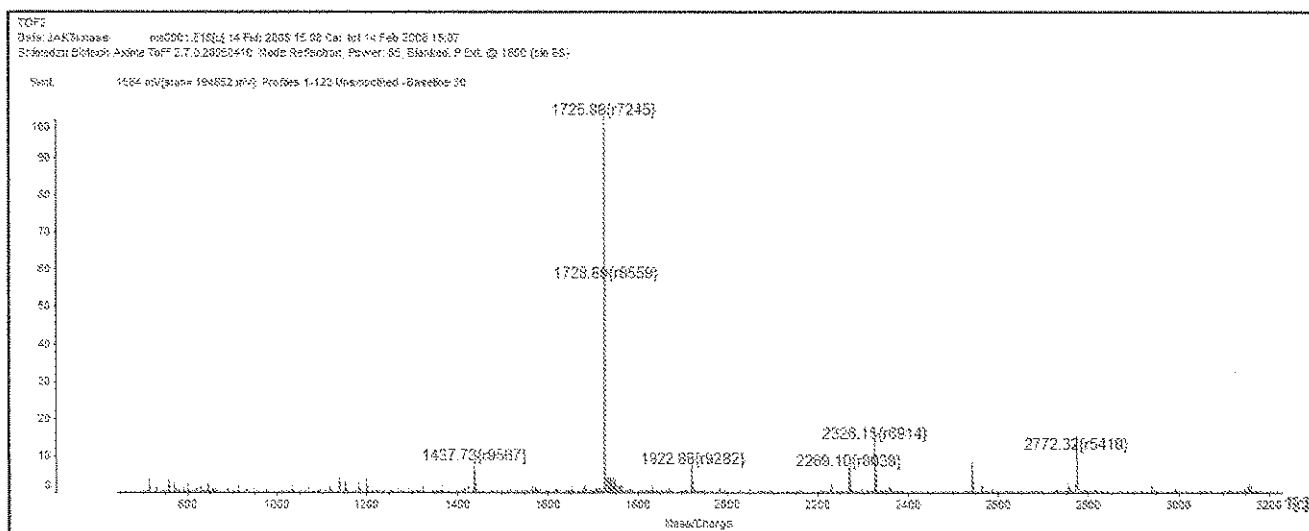
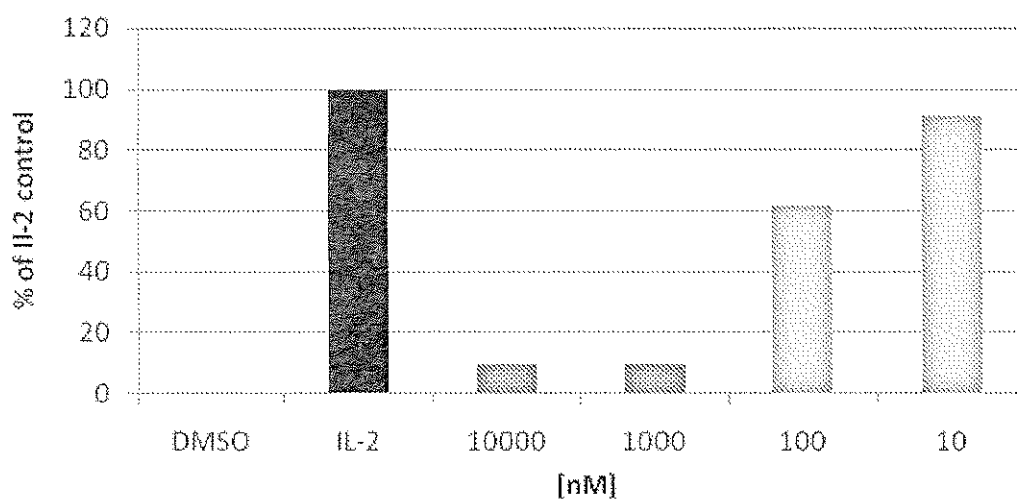
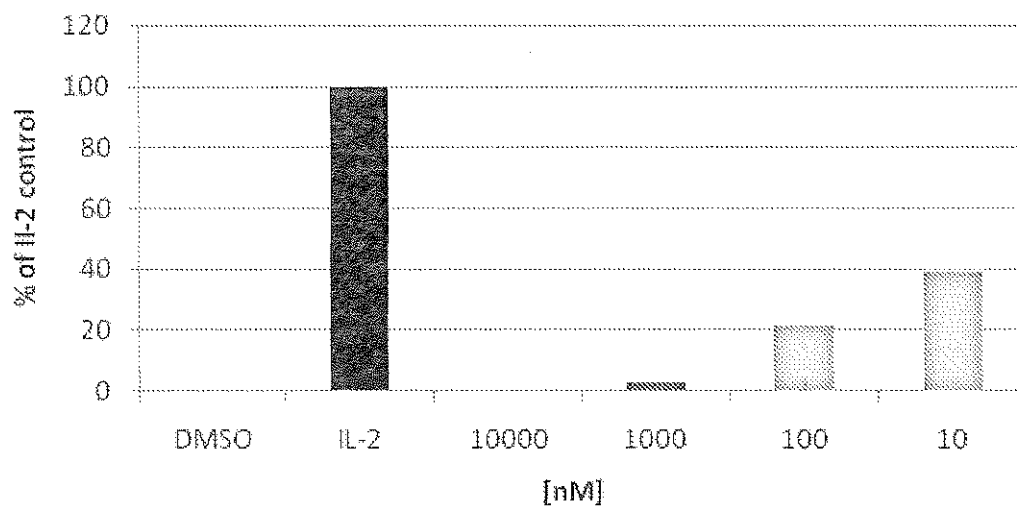


Figure 11

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Dose Response with Compound I-2 in CTLL-2 cells**P-Jak3 in IL-2 stimulated CTLL-2 cells****P-Stat5 in IL-2 stimulated CTLL-2 cells****Figure 12**

Dose Response with Compound I-4 in CTLL-2 Cells

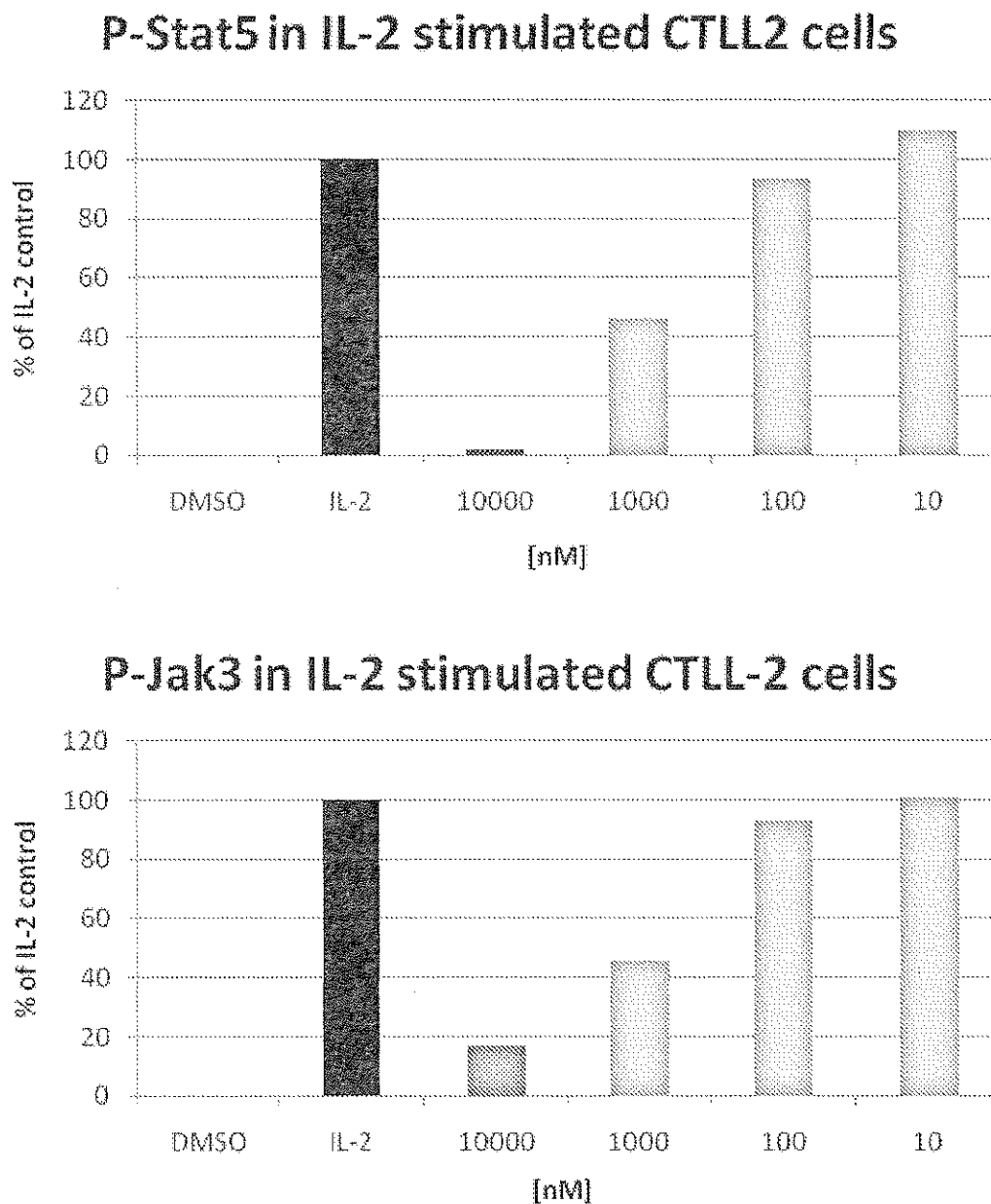
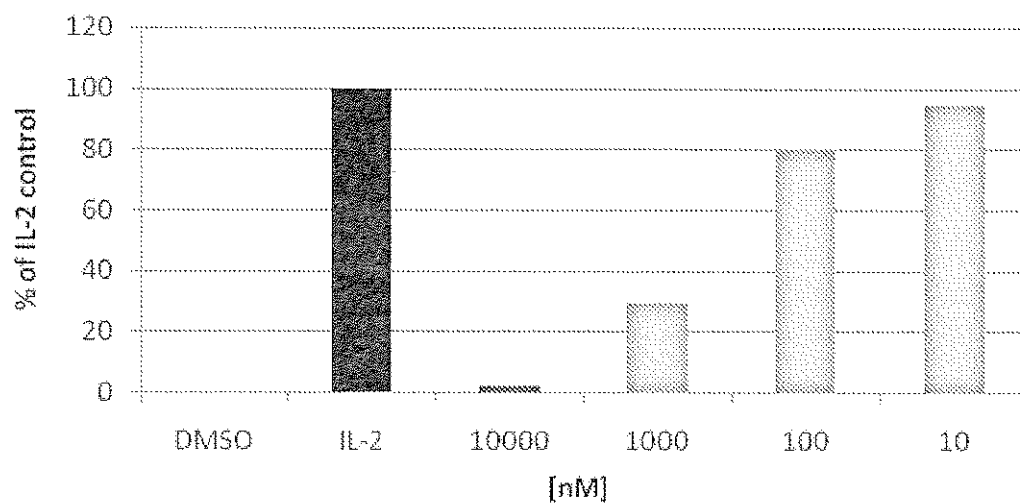


Figure 13

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Dose Response with Compound I-7 in CTLL-2 Cells**P-Stat5 in IL-2 stimulated CTLL-2 cells****Figure 14**

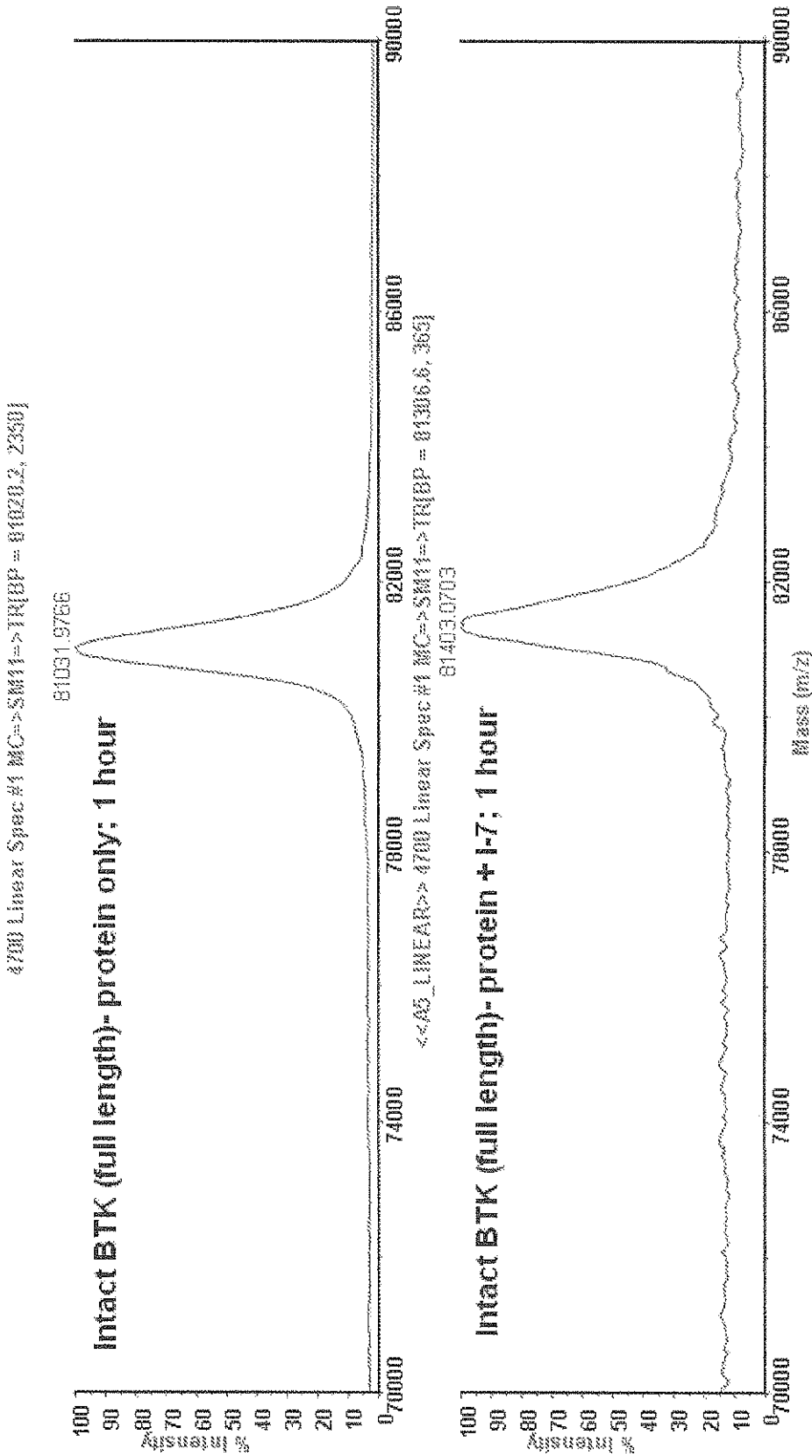


Figure 15

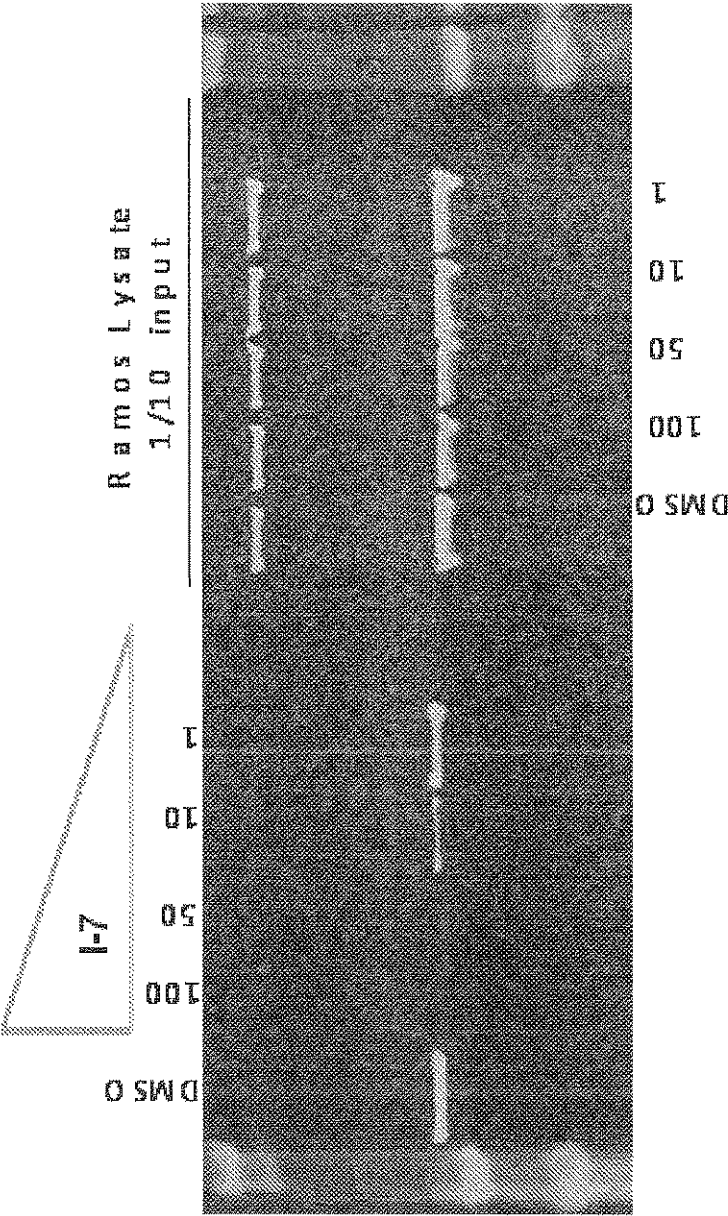


Figure 16

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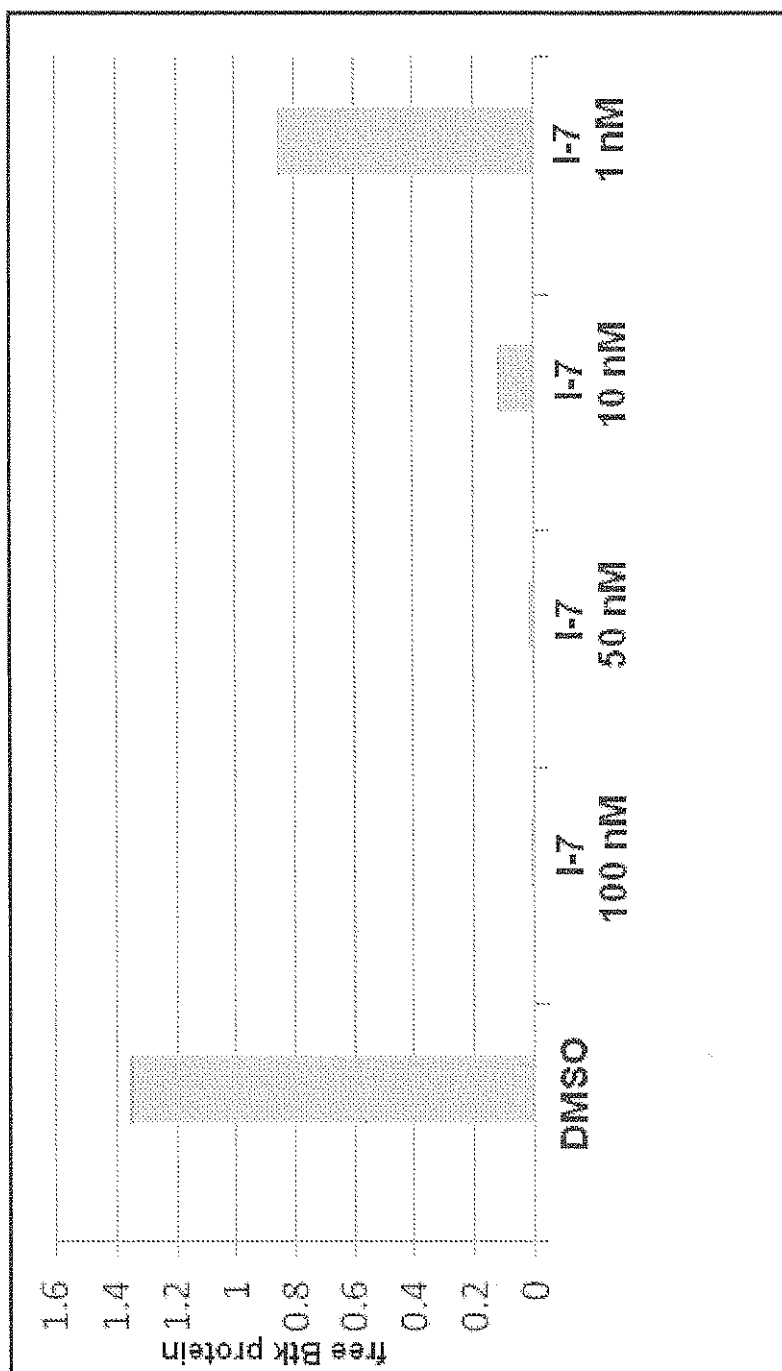


Figure 17

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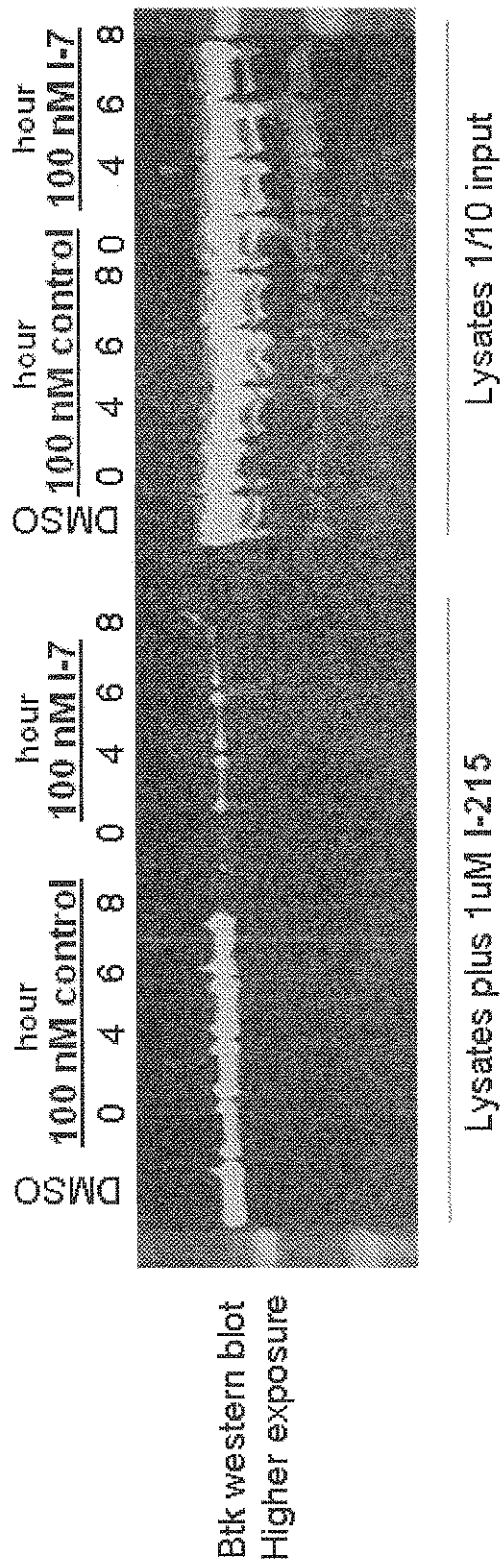


Figure 18

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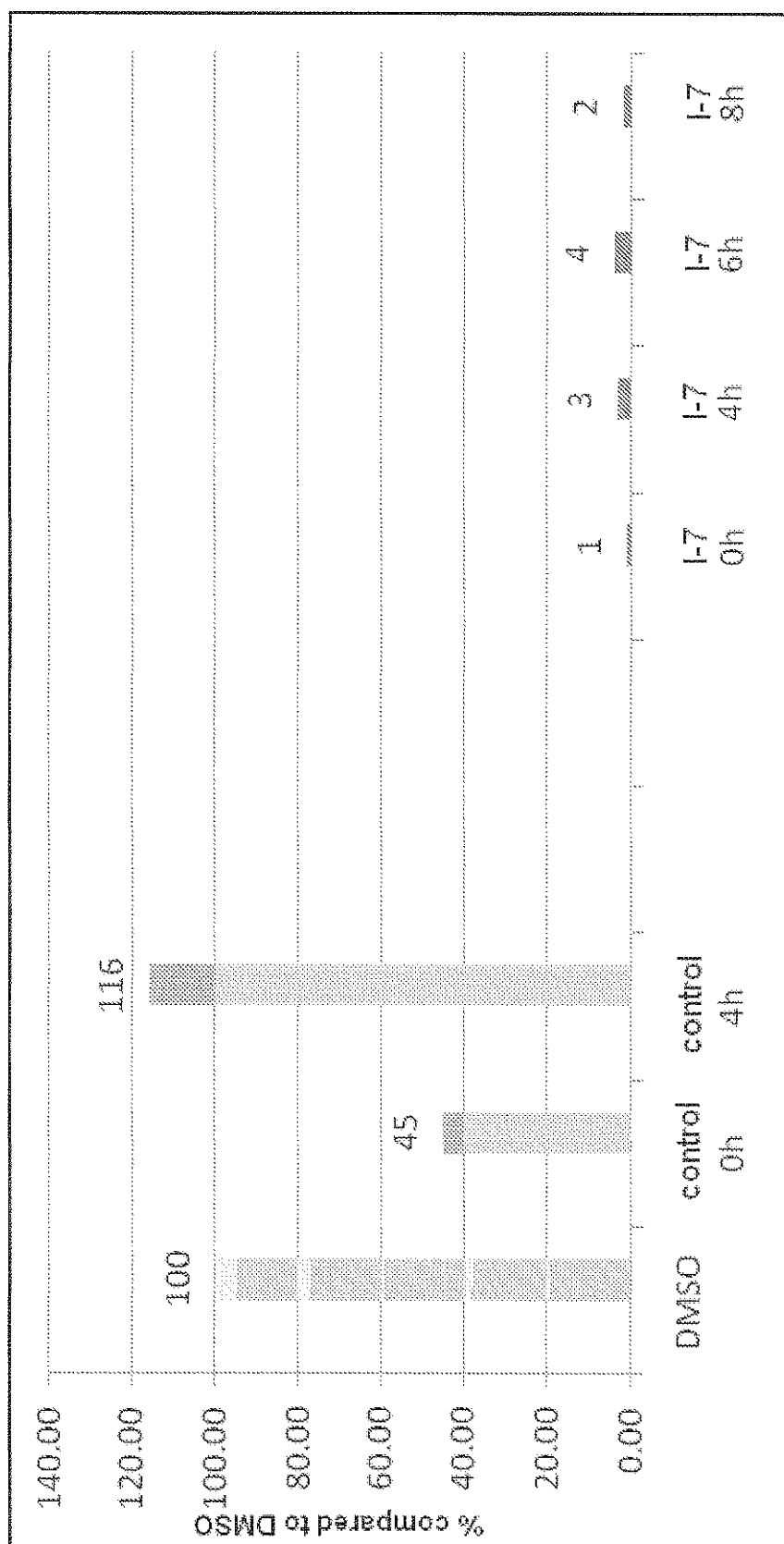


Figure 19

SEQ ID 1: FULL LENGTH BTK PROTEIN:

MAAVILESIFLKRSQQKKKTSPLNFKKRLFLLTVHKLSYVEYDFERGRRGSKKGSIDVEK
ITCVETVVPKNNPPPERQIPRRGEESSEMEQISIIERFPYPFQVVYDEGPLYVVFSPTEEL
RKRWIHLQKNVIRYNSDLVQKYHPCFWIDGQYLCCSQTAKNAMGCQILENRNGSLKPGSSHRKTKKPLPPTPEEDQILKKPL
PPEPAAAPVSTSELKKVVALYDYMPMNANDLQLRKGDYFIEESNLPWWARDKNGQEGYIPSNYVTEAEDSIEMYEWY
SKHMTSRQAEQLLKQEGKEGFIVRDSSKAGKYTVSVFAKSTGDPQGVIRHYVVCSTPQSQYYLAEKHLFSTIPELINYHQH
NSAGLISRLKYPVSQQNKNA⁴⁸¹ PSTAGLGYGSWEIDPKDLTFLKELGTGQFGVVKYGKWRGQYDVAIKMIKEGSMSEDEFIEEA
KVMMNLSHEKL⁴⁸¹ VQLYGVCTKQRPIFIITEYMANGC⁴⁸¹ LLN⁴⁸¹ YLREMRHRFQTQQLLEMCKDVCEAMEYLESKQFLHRDLAARN
CLVNDQGVVVKVSDF

Cys=481

Figure 20

SEQ ID 2: FULL LENGTH TEC PROTEIN NP_003206_631 aa

MNFNTILEEILKRSQQKKKTSPNLNYKERLFVLTKSMLTYEGRAEKKYRKGFIDVSKIKCIVEIVKNDGDIVPCQNKYPFQVV
HDANTLYIFAPSPQSRDLWVKKLEKEIKNNNNMIKYHPKFWTDGSYQCCRQTEKLA PGCEKYNL FESSIRKALPPAPETKKR
RPPPIPLEEEDNSEEEIVVAMYDFQAAEGHDLRLERGGQEYLILEKNDVHWWRARDKYGNEGYPNSNYVTGKKSNNLDQYEW
YCRNMNRSKAEQLLRSEDKGGFMVRDSSQPGLYTVSLYTKFGGEGSSGFRHYHIKETTTSPKKYYLAEKHAFGSIPEIEYH
KHNAAGLVTRLRYPSVKGK
NAPTTAGFSYEKWEINPSELTFMRELGSGLFGVVRLGKWRQYKVAIKAIREGAMCEEDFIEEAKVMMKLTHPKLVQLYGV
CTQQKPIYIVTEFMERGC¹LLNFLRQQRQHFSRDVLLSMCQDVCEGM EYLERNSFIHRDLAARNCLVSEAGVVKVSDFGMAR
YVLDDQYTSSSGAKFPVKWCPPEVFNYSRFSSKSDVWSFGVLMWEVFTEGRMPFEKYTNYEVTMTVTRGHRLYQPKLASN
YVYEVMLRCWQEKPEGRPSFEDLLRTIDELVECEETFGR

Cys=449

Figure 21

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SEQ ID 3: FULL LENGTH ITK PROTEIN NP_005537_620aa

MNNEILL EEQLIKSQQRRTSPSNFKVRRFFVLTKASLAYFEDRHGKKRTLKGSIELSRIKCV EIVKSDISIPCHYKYPFQVVHID
NYLLYVFAPDRESRQRWVLALKEETRNNNSLVPKYHPNFWMDGKWRCCSQLEKLATGCAQYDPTKNASKKPLPPTPEDNR
RPLWEPEETVIALYDYQTNDPQELALRRNEEYCLLDSSEIHWWRVQDRNGHEGYVPSSYLVEKSPNNLETYEWYNKSISR
DKAEKLLLDTGKEGAFMVRDSRTAGTYTVSVFTKAVVSENNPCIKHYHIKETNDNPKRYYVAEKYVFDSPILLINYYHQHNG
GGLVTRLRYPVCFGRQKAPVTAGLRYGKWVIDPSELTFVQEIGSGQFGLVHLGYWLNKDKVAIKTIREGAMSEEDFIEEAEV
MMKLSHPKL VQLYGVCL EQAPICLVFEFMEHGCLSDYLRTQRGLFAAETLLGMCLDVCEGMAYLEEA CVIHRDLAARNCL
VGENQVIKVSDFGMTRFVLD DQYTSSTGTGTFPV/KWASPEVFSFSRYSSKSDVWSFGVLMWEVFESEGKIPYENRSNSEVVEDI
STGFRLYKPRLASTHVYQIMNHCWKERPDRPAFSRLLRLRLAEIAESGL

Cys=442

Figure 22

SEQ ID 4: FULL LENGTH BMX PROTEIN NP_001712_675aa

MDTKSILEELLKRSQQKKMSPNNYKERLFVLTNTLSYYEYDKMKRGRKGSIEIKKRCVEKVNLEEQTVERQYPPQIV
YKDGLLYVYASNEERSQWLKALQKEIRGNPHLLVKYHSGFFVDGKFLCCQSCKAAPGCTLWEAYANLHTAVNEEKHRV
PTFPDRVLKIPRAVPVLKMDAPSSSTTLAQYDNESKKNYGSQPPSSSTSLAQYDSNSKKIYGSQPNFNMQYIPREDFPDWWQ
VRKLKSSSSSEDAASSNQKERNVNHTTSKISWEFPSSSSSEEEENLDDYDWFAGNISRSQSEQLLRQKGKEGAFMVRNSSQV
GMYTVSLFSKAVNDKKGTVKHYH
VHTNAENKLYLAENYCFDSIPKLIHYHQHNSAGMITRLRHPVSTKANKVPDSVSLGNGIWELKREEITLLKELGSGQFGVVQ
LGKWKGGYDVAVKMIKEGSMSEDEFFQEAQTMMLKSHPKLVKFYGVCSKEYPIYIVTEYISNGCLLNLYLRSHGKGLEPSQL
LEMICYDVCEGMAFLESHQFIHRDLAARNCLVDRDLCVKVSDFGMTRYVLDDQYVSSVGTGKFPVKWSAPEVFHYFKYSSKS
DVWAFGILMWEVFSLGKQPYDLYDNSQVVVKVSQGHRLYRPHLASDTIYQIMYSCWHELPEKRPTFQQLLSSIEPLREKDK
H

Cys=496

Figure 23

SEQ ID 5: FULL LENGTH TXK PROTEIN NP_003319.527 aa

MILSSYNTIQSVFCCCCCSVQKRQMRTQISLSTDEELPEKYTORRRPWLSQLSNKKQSNLTGRVQPSKRKPLPLPPSEVAEE
KIQVKALYDFLPREPCNLALRRAEYLILEKYNPHWWKARDRLGNEGIPSNYVTENKITNLEIYEWYHRNITRNQAEHLR
QESKEGAFIVRDSRHLGSYTTISVFMGARRSTEAAIKHYYQIKKNDSGQWYVAERHAFQSIPELIWYQHNAAGLMTRLRYPVG
LMGSCLPATAGFSYEKWEIDPSELAFIKEIGSGQGFGVVHLGEWRSHIQVAIKAINEGSMSEEDFIEEAKVMMKLSHSLVQLY
GVCIQRKPLYIVTEFMENGCLLNLYLRENKGKLRKEMLLSVCQDICEGMEYLERNGYIHRDLAARNCLVSSTCIVKISDFGMT
RYVLDDEYVSSFGAKFPIKWSPPEVFLFNKYSSKSDVWSFGVLMWEVFTGKMPFENKSNLQVVEAISEGFRLYRPHLAPMS
IYEVMYSCWHEKPEGRPTFAELLRAVTEIAETW

Cys 350

Figure 24

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SEQ ID 6: FULL LENGTH JAK3 PROTEIN NP_000206.1124 aa

MAPPSEETPLIPQRSCSLSTEAGALHVLPPARGPGPPQRLSFSFGDHLAEDLCVQAASGILPVYHSLFALATEDLSCWFPP
SHIFSVEDASTQVLLYRIRFYFPNWFGLEKCHRFGLRKDLASAILDLPVLEHLFAQHRSDLVSGRLPVGLSLKEQGECLSLAV
LDLARMAREQAQRPGELLKTVSYKACLPPLSLDLIQGLSFVTRRRIRRTVRRALRRVAACQADRHSLMAKYIMDLERLDPA
GAAETHFVGLPGALGGHDGLGLLRVAGDGGIAWTQGEQEVLPFCDFPEINVDISIKQAPRVGPAGEHRLVTVTRTDNQILEA
EFPGLPEALSFVALVDGYFRLTTDSQHFFCKEVAPRLLLEEVAEQCHGPITLDAINKLKTGGSRPGSYVLRSPQDFDSFLLT
VCVNPLGPDYKGCILRRSPTGTFLLVGLSRPHSSLRELLATCWDGGGLHVDGVAVTLTSCCIPRPKEKSNLIVVQRGHSPPTS
SLVQPQSQYQLSQMTFHKIPADSLEWHENLGHGSFTKIYRGCRHEVVDGEARKTEVLLKVMDAKHKNCMESFLEAASLMS
QVSYRHLVLLHGVCMAGDSTMVQEFVHLGAIDMYLRKRGHLPASWKLQVVVKQLAYALNYLEDKGLPHGNVSARKVLL
AREGADGSPFFIKLSDPGVSPAVLSLEMLTDRIPWVAPECLREAQTLSEADKWGFGATVWEVFSGVTMPISALDPAKKLQF
YEDRQQLPAPKWTEALLIQQCMA YEPVQRPSFRAVIRDLNSLISSDYELLSDPTPGALAPRDGLWNGAQLYACQDPTIFEER
HLKYISQLGKGNFGSVELCRYDPLGDNTGALVAVKQLQHSQDQQRDFQREIQILKALHSDFIVKYRGVSYGPGRQSLRLV
MEYLPSCGLRDFLQRHRARLDA SRLLLYSSQICKGMEYLGSRRCVHRDLAARNILVESEAHVVKIADFGLAKLLPLDKDYVYV
VREPGQSPIFWYAPESLSDNIFSRQSDVWSFGVVL YELFTYCDKSCSPSAEFLRMMGCERDVPALCRILLEEGQRLPAPPA
CPAEVHELMKLCWAPSPQDRPSFSALGPQLDMLWSGSRGCETHAFTAHPEGKHHSLSFS

Cys=909

Figure 25