

Homo sapiens	1	MMDLELPPPGLPSQDDMDLIDLWRQDIDLGVSR	REVFDF	QRRKEYELEKQKKLEKERQEQ	LQKEQEKAFQTQLQDLDEE
Mus musculus	1	MMDLELPPPGLPSQDDMDLIDLWRQDIDLGVSR	REVFDF	QRQKDYELKQKKLEKERQEQ	LQKEQEKAFQFQLQDLDEE
Rattus norvegicus	1	MMDLELPPPGLPSQDDMDLIDLWRQDIDLGVSR	REVFDF	QRQKDYELKQKKLEKERQEQ	LQKEQEKAFQFQLQDLDEE
Bos taurus	1	MMDLELPPPGLPSQDDMDLIDLWRQDIDLGVSR	REVFDF	QRQKDYELKQKKLEKERQEQ	LQKEQEKAFQFQLQDLDEE
Gallus gallus	17	-----MNLIDLWRQDIDLGVSR	REVFDF	QRQKDYELKQKKLEKERQEQ	LQKEQEKAFQFQLQDLDEE
Xenopus tropicalis	1	MMEIEMPLP-LQSQQDDMDLIDLWKQDIDLGVSR	REVFDF	NRQKENELEKQKKLEKERQEQ	LQKEREKALYAQLQDLDEE
Danio rerio	1	MMEIEMSKMQ-PSQQDDMDLIDLWRQDIDLGVSR	REVFDF	YRQKEVELEKQKKLEKERQEQ	LQKEREKALYAQLQDLDEE
Homo sapiens	81	GEFLP-IQPAQHTQSE	SGS-ANYSQV-AHIPK-QDALYFDDCMQLLAE	PPFVDDNEVSSATFQ	S LVPDIPGHI
Mus musculus	81	GEFLP-IQPAQHTQSE	SGS-ANYSQV-AHIPK-QDALYFDDCMQLLAE	PPFVDDHE	S LALDIPSHAE
Rattus norvegicus	81	GEFLP-IQPAQHTQSE	SGS-ANYSQV-AHIPK-QDALYFDDCMQLLAE	PPFVDDHE	S LALDIPSHAE
Bos taurus	81	GEFLP-IQPAQHTQSE	SGS-ANYSQV-AHIPK-QDALYFDDCMQLLAE	PPFVDDNEVSSATFQ	S LVPDIPSHAE
Gallus gallus	80	GEFVP-AQPAQRVQSEN	AEPPISSQS-TDTSKPEEALS	FDDCMQLLAE	PPFIDNEASPAAFQ
Xenopus tropicalis	80	GEFIP-IQQA--APIE	AAVTQELASSIEVPSLVHDLSP	FCECLKI	LGETFQLGPAEESLAYQ
Danio rerio	80	GEFLPRSTPLTHTPEAD	GGGAGEI	QNGAFAEQEAD	PMSFDECMQLLAE
Homo sapiens	157	IATNQASPE	SVAQVAVPVDLDGMQDIEQVWEEEL	SIPEL-QCLNIENDKLVE	MVPSPEA-KL
Mus musculus	150	TAPHQAQSLNSSL-EAAMTDLSSIEQDMEQVWQELF	SIPEL-QCLNTENKQLAD	AVPSPEA-TL	EMDSNY-HFY
Rattus norvegicus	150	TTPDQAQSLDSSL-ETAMTDLSSIEQDMEQVWQELF	SIPEL-QCLNTENKQAE	TVPSPEA-TL	EMDSNY-HFY
Bos taurus	157	TAPPQAQSP	LIVQVAVAVLDDMQ-DIEQVWEEEL	SIPEL-QCLNIENDKLVE	MVPSPEA-KL
Gallus gallus	156	ISANTQPPSSP-GIVPLTDAENMQ-NIEQVWEEEL	SIPEL-QCLNIENDKLVE	STI	TSPE-KPAEMHNSY-DY
Xenopus tropicalis	157	QSEPNPVPAG	---LSSIPAEGEIMHMQVWEEEL	SIPEL-QCLNNEIENMVLD	MYTNQESI
Danio rerio	149	PSTDLMMPADVP	---AFTQNP	LLPGSLDQAWMEL	SIPELQCLNMPQETLDMN
Homo sapiens	233	FMEKEVGNCSPPHLN	FEDFS	SIL	EDPNQLTVNSLMDA
Mus musculus	226	SLEKEVGNCSPPHLN	FEDFS	SIL	DDASQLT--NSL
Rattus norvegicus	226	SLEKEVGNCSPPHLN	FEDFS	SIL	DDASQLT--NSL
Bos taurus	232	PLDKEVGNCSPPHLN	FEDFS	SIL	EDSSQLTVNSLMSA
Gallus gallus	231	PIMRKDV-NCGPDFLEN	IEGPFSS	ILQPDSSQLNVNSL	NSL
Xenopus tropicalis	232	SIEK	---PHESTV--FSS	DLVDTTSSSLP	---SVN
Danio rerio	225	GAQTEV	---CPPEFTNTYR	SNMVMV	PN-MNQLSLNVPDVGAEFGPEEFN
Homo sapiens	312	LLNGPIDVSDLS	SLCKAFNQNHPES-	AEFND	SDS
Mus musculus	303	LLDGTIEGCDLS	SLCKAFNPKHAE	MEFND	SDS
Rattus norvegicus	303	LLGGPIEGCDLS	SLCKAFNPKHAE	MEFND	SDS
Bos taurus	311	LLNGPIDVSDLS	SLCKAFNQNHPES-	AEFND	SDS
Gallus gallus	308	ILSEPIDLSDF	PLWRFAFNDDHS-GT	VEPCND	SDS
Xenopus tropicalis	298	LLNDNVDITDL	SLCKAFNQNHPES-	AEFND	SDS
Danio rerio	299	PPVNPIDLQSF	PGD-FSSGKDP	IVEFQD	SDS
Homo sapiens	390	QNGPKT-PVHSSGDMVQ	PLPSQGG	THVHDAQCENT	TEKELPV
Mus musculus	381	QNGPKAQP	PAHSPGD	TVQPL	PAQGH
Rattus norvegicus	381	QNGPKAQP	PAHSPGD	TVQPL	PAQGH
Bos taurus	391	QKGP	TPSVWPPGD	PVQPL	SSQGN
Gallus gallus	386	QGNASVYSSRF	PDQV	---P	VEVPT
Xenopus tropicalis	373	QKPPDNFTA	AFTE	TYFTL	SPVSH
Danio rerio	372	SDYNEI	FPLVY	LNDG	SSQ
Homo sapiens	469	PVEKIINLPVDDFNEMM	SKEQFNEAQLALIRDIRRRGKNKVA	AQNCRRKKLEN	IVELEQDL
Mus musculus	461	PVEKIINLPVDDFNEMM	SKEQFNEAQLALIRDIRRRGKNKVA	AQNCRRKKLEN	IVELEQDL
Rattus norvegicus	461	PVEKIINLPVDDFNEMM	SKEQFNEAQLALIRDIRRRGKNKVA	AQNCRRKKLEN	IVELEQDL
Bos taurus	471	PVEKIINLPVDDFNEMM	SKEQFNEAQLALIRDIRRRGKNKVA	AQNCRRKKLEN	IVELEQDL
Gallus gallus	462	PVEKIINLPVDDFNEMM	SKEQFNEAQLALIRDIRRRGKNKVA	AQNCRRKKLEN	IVELEQDL
Xenopus tropicalis	453	SVDKIVNLPVDDFNEMM	SKEQFNEAQLALIRDIRRRGKNKVA	AQNCRRKKLEN	IVELEQDL
Danio rerio	450	TVDMIINLPVDDFNEMM	SKEQFNEAQLALIRDIRRRGKNKVA	AQNCRRKKLEN	IVELEQDL
Homo sapiens	549	SLHLKQL	SLYLEV	MLRDE	DGKPY
Mus musculus	541	NLHLKRL	SLYLEV	MLRDE	DGKPY
Rattus norvegicus	541	NLHLKRL	SLYLEV	MLRDE	DGKPY
Bos taurus	551	SLHLKQL	SLYLEV	MLRDE	DGKPY
Gallus gallus	542	SLRQMKQL	SLYLEV	MLRDE	DGKPY
Xenopus tropicalis	533	SLSQKQL	GALYMEVFNKLQ	DENGQPY	SPHEYS
Danio rerio	530	NLKEMKQL	SLYQEVF	GMLRDENGKAF	SPNEFS

Supplemental Material Figure A. Putative Ser and Thr phosphorylation sites in Nrf2 from vertebrates. Boxes indicate residues that are conserved at least in mammals. Brackets and blue boxes indicate clusters of Ser/Thr residues that might be phosphorylated by GSK-3 with the collaboration of other kinases. These kinases, term priming kinases, create a recognition phospho-motive for GSK-3 in the consensus sequence (S/T) $X_{(1-4)}$ p(S/T), where X is any amino acid and p(S/T) is the Ser/Thr residue that has been previously phosphorylated by the priming kinase. Red boxes indicate Ser residues adjacent to Pro, that might be phosphorylated by GSK-3 without the collaboration of a priming kinase.