Sequence appendix:

SEQ ID NO: 1: wild type human KYNase

MEPSSLELPADTVQRIAAELKCHPTDERVALHLDEEDKLRHFRECFYIPKIQDLPPVD
LSLVNKDENAIYFLGNSLGLQPKMVKTYLEEELDKWAKIAAYGHEVGKRPWITGDE
SIVGLMKDIVGANEKEIALMNALTVNLHLLMLSFFKPTPKRYKILLEAKAFPSDHYAI
ESQLQLHGLNIEESMRMIKPREGEETLRIEDILEVIEKEGDSIAVILFSGVHFYTGQHFN
IPAITKAGQAKGCYVGFDLAHAVGNVELYLHDWGVDFACWCSYKYLNAGAGGIAG
AFIHEKHAHTIKPALVGWFGHELSTRFKMDNKLQLIPGVCGFRISNPPILLVCSLHASL
EIFKQATMKALRKKSVLLTGYLEYLIKHNYGKDKAATKKPVVNIITPSHVEERGCQL
TITFSVPNKDVFQELEKRGVVCDKRNPNGIRVAPVPLYNSFHDVYKFTNLLTSILDSA
ETKN

SEQ ID NO: 2

Protein 168:
MEPSSLELPADTVQRIAAELKCHPTDERVALHLDEEDKLRHFRECFYIPK
IQDLPPVDLSLVNKDENAIYFNGNSLGLQPKMVKTYLEEELDKWAKIARY
GWRHGKPPWITYDESIVGLMKDIVGANEKEIALMNALTVNLHLLMLSFFK
PTPKRYKILLEAKAFPSDHYAIESQLQLHGLNPEESMRMIKPREGEETLR
IEDILEVIEKEGDSIAVILFSGVHFYTGQHFNIPAITKAGQAKGCYVGWD
LAHAVGNVELYLHDWGVDFACWCSYKYLNAGPGGIAGAFIHEKHAHTIKP
ALVGWWGHELSTRFKMDNKLQLIPGVCGFRSSTPPILLVCSLHASLEIFK
QATMKALRKKSVLLTGYLEYLIKHNYGKDKAATKKPVVNIITPSHVEERG
CQLTITFNVPNKDVFQELEKRGVVCDKRNPNGIRVTPVPLYNSFHDVYKF
TNLLTSILDSAETKN*

SEQ ID NO: 3

Protein 153:
MEPSSLELPADTVQRIAAELKCHPTDERVALHLDEEDKLRHFRECFYIPKIQDLPPVD
LSLVNKDENAIYFNGNSLGLQPKMVKTYLEEELDKWAKIARY
GWRHGKPPWITYDESIVGLMKDIVGANEKEIALMNALTVNLHLLMLSFFKPTPKRY
KILLEAKAFPSDHYAIESQLQLHGLNPEESMRMIKPREGEETLR
IEDILEVIEKEGDSIAVILFSGVHFYTGQHFNIPAITKAGQAKGCYVGFDLAHAVGNVE
LYLHDWGVDFACWCSYKYLNAGPGGIAGAFIHEKHAHTIKP
ALVGWWGHELSTRFKMDNKLQLIPGVCGFRSSTPPILLVCSLHASLEIFKQATMKAL
RKKSVLLTGYLEYLIKHNYGKDKAATKKPVVNIITPSHVEERG
CQLTITFNVPNKDVFQELEKRGVVCDKRNPNGIRVTPVPLYNSFHDVYKFTNLLTSIL
DSAETKN*