

A

**$\alpha 3$  (UMA500) 7bp deletion sequence translation:**

EREILPPSSTNLRVREGGGGKVGLRRAGSPALPALNTNIPSVQHRLRQILQNSAIATT\*KNLLENKWTDRAD  
NQLLRKCPKSVGRGKKKRISHWLSGLQSA~~AGVFHKL~~TSCVCCVWILLSLLFNPSSQTGAVTGHREPIPD  
DSKDNITIFTRILDRLLDGYDNRLRPGLGAESVTEVRTNIYVTSFGPVSDTDMEYIDVFFRQSWRDERLK  
FDGPMQVLPNNLLASKIWTP~~ASTTGR~~SQ\*PTT\*LHPINFCDW\*TMGLYSTL\*D\*PSMLSVQCIWRIFPWTP  
TPAR\*SSGAMPTLTMRCTSGRRMMRNQCLWLLTVRDSTSMTCWDTSSAKRPSAPVQENMW\*\*QHISI  
\*KGKLAIS\*SRRICPA\*\*PSYYLRSPSG\*TASLCRRAPSSVSLFFILSLLFINA

B

**$\alpha 3$  (UMA501) 18bp insertion sequence translation:**

EREILPPSSTNLRVREGGGGKVGLRRAGSPALPALNTNIPSVQHRLRQILQNSAIATT\*KNLLENKWTDRAD  
NQLLRKCPKSVGRGKKKRISHWLSGLQSA~~AGVFHKL~~TSCVCCVWILLSLLFNPSSQTGAVTGHREPIPD  
DSKDNITIFTRILDRLLDGYDNRLRPGLGAESVTEVRTNIYVTSFGPVSDTDMEYIDVFFRQSWRDERLK  
FDGPMQVLPNNLLASKIWT~~LIK~~P\*L~~SCTFFHNGKKSVAHNMTTPNKLLRLVDNGTLLYTMRLTIHAECPM~~  
HLED~~FPM~~DAHACPLKFGSYAYTNNEVVYIWTADDEKSVSVAPDGSRLNQYDLLGHVIGKETISSSTGEYV  
VMTTYFHLKRKIGYFVIQTYLPCIMTVILSQVSFWLNRRESVPARTVFGKSFFYPFAVVY\*

C

**$\alpha 4$  (UMA504) 11bp deletion sequence translation:**

VRS\*MCCASDARPSFGTEACV\*EPSASSSLSSNLLSARRTIPQDASPYASLNH\*VWGLDVGDPSGAE\*VL  
DL~~DAS~~LARLCG\*W\*SASCALPRVSSVIPRDVWRREM\*RRLKEWHVN~~VS~~AKKEMVTAMYPTSISTLLYFL  
CVAACIKRISGQIRKDEKLYPENFTRILDRLLDGYDNRLRP~~GFGG~~PVTEVKTDIYVTSFGPVSDVEMEYTM  
DVFFRQTWVDRRLRYEGPVEILRLNNLM~~VD~~SRHFLQKRQEIRGSQH~~DGA~~QQTLPNHEERHHPVHYEVD  
N~~KCR~~MPDATGEFPDGRPLLSAEVRQLCLPKD\*DDLHVD\*RPAA~~LGG~~GTS\*ILQSGPV\*SDWTD~~CV~~QRDC  
QIHHR\*ICGNDGLLPLEKENGLLHDSDVHPLHHD~~CN~~PFASVLDK\*GIRARQNCLWNHHRPHDDHPQH  
RSPFSAQGLLCHRHGLVYSRVFRVCLLRAH\*VCGRQLLYQRPSRESQEETGQSCGRRIRQELHGQK\*RH  
RGGPAAKLGHQRQPAETCQLQHSASSRVQENPKNRSLKQKRILVQTNFDQPIIFHLRRYQQFLQPIAS\*  
PQFRQPIEC~~SR~~FLLLCLKDHASGSTLYTHSS\*QTITRDDPRRLRPSSPPRA\*IREYQKERSKGST~~SAC~~RP  
CHWRSQQDRRICTHFIPSVLRGV\*HGVLGGLLIQRHHGGQGS~~LT~~SL