

>sp|P04653|CASA1\_SHEEP Alpha-S1-casein OS=Ovis aries OX=9940 GN=CSN1S1 PE=1 SV=3

MKLLILTCLVAVALARPKHPIKHQGLSSEVLNENLLRFVVPFPEVFRKENINELSKDIG  
SESIEDQAMEDAKQMKAGSSSSSEIIVPNSAEQKYIQKEDVPSERYLGYLEQLLRLKKN  
VPQLEIVPKSAEEQLHSMKEGNAHQKQPMIAVNQELAYFYFYPQLFRQFYQLDAYPSGAWY  
YLPLGTQYTDAPSFSDIPNPIGSENSGITMPLW

>sp|P02669|CASK\_SHEEP Kappa-casein OS=Ovis aries OX=9940 GN=CSN3 PE=1 SV=2

MMKSFFLVVTILALTLPLFLGAQEONQEQRICCEKDERFFDDKIAKYIPIQYVLSRYP  
LNYYQQRPVALLINNQLFYPYYPYAKPVAVRSPAQTLQWQVLPNAVPAKSCQDQPTAMARHP  
HPLHSFMAIPPKDQDKTEIPAINTIASAEPTVHSTPTTEAVVNAVDNPEASSESIASAP  
ETNTAQVTSTEV

>sp|P11839|CASB\_SHEEP Beta-casein OS=Ovis aries OX=9940 GN=CSN2 PE=1 SV=3

MKVLILACLVALALAREQEELNVVGETVESLSSSEESITHINKKIEKFQSEEQQQTEDEL  
QDKIHPFAQAQSLVYPFTGPIPNSLPQNILPLTQTPVVVPPFLQPEIMGVKPKETMVPK  
HKEMPFKYPVEPFTESQSLTLTDVEKLHLPLPLVQSWMHQPPQPLPPTVMFPPQSVLSL  
SQPKVLPVPQKAVPQRDMPIQAFLLYQEPVLGPVGRGPFPIV

>sp|P04654|CASA2\_SHEEP Alpha-S2-casein OS=Ovis aries OX=9940 GN=CSN1S2 PE=2 SV=1

MKFFIFTCLLAVALAKHMEHVSSEEPINISQEIYKQEKMAIHRKEKLCCTTSCEEV  
RNADEEEYSIRSSSEESA EVAPEEVKITVDDKHQKALNEINQFYQKFPQYLQYLYQGPI  
VLNPWDQVQRNAGPFTPTVNREQLSTSEENSKKTIDMESTEVFTKTKLTEEEKNRLNFL  
KKISQYYQKFAWPQYLKTVQHQKAMKPWTQPKTNAIPYVRYL

>sp|P67976|LACB\_SHEEP Beta-lactoglobulin-1/B OS=Ovis aries OX=9940 PE=1 SV=1

MKCLLLALGLALACGVQAIIVTQTMKGLDIQKVAGTWHSLAMAASDISLLDAQSAPLRVY  
VEELKPTPEGNLEILLQKWENGCAQKIIAEKTKIPAVFKIDALNENKVLVLDTDYKKY  
LLFCMENSAPPEQSLACQCLVRTPEVDNEALEKFDKALKALPMHIRLAFNPTQLEGQCHV

>sp|P02758|LACB1\_HORSE Beta-lactoglobulin-1 OS=Equus caballus OX=9796 GN=LGB1 PE=1 SV=3

MKCLLLALGLALMCGIQATNIPQTMQDLDLQEVAGKWHSVAMAASDISLLDSESAPLRVY  
IEKLRPTPEDNLEIILREGENKGCAEKKIFAECTESPAEFKINYLDEDTVFALDTDYKNY  
LFLCMKNAATPGQSLVCQYLARTQMVDDEIMEKFRRALQPLPGRVQIVPDLTRMAERCRI

>sp|P07380|LACB2\_HORSE Beta-lactoglobulin-2 OS=Equus caballus OX=9796 GN=LGB2 PE=1 SV=3

MKCLLLALGLSLMCGNQATDIPQTMQDLDLQEVAGRWHSVAMVASDISLLDSESVPLRVY  
VEELRPTPEGNLEIILREGANHACVERNIVAQKTEDPAVFTVNYQGERKISVLDTDYAHY  
MFFCVGPPLPSAEHGMVCQYLARTQKVDEEVMEKFSRALQPLPGRVQIVQDPSGGQERC  
G

>sp|Q9GKK3|CASB\_HORSE Beta-casein OS=Equus caballus OX=9796 GN=CSN2 PE=1 SV=3

MKILILACLVALALAREKEELNVSSETVESLSSNEPDSSEESITHINKEKLQKFKHEGQ  
QQREVERQDKISRFVQPQPVVYPYAEPVYPVAVPQSILPLAQPPILPFLQPEIMEVSQAK  
ETILPKRKVMPFLKSPIVPFSEKILNPTNGENLRPLVHLIQPFMHQVPSLLQTLMLPS  
QPVLSPQSKVAPFPQPVVYPQRDTPVQAFLLYQDPRLGPTGELDPATQPIVAVHNPVI  
V

>sp|P82187|CASK\_HORSE Kappa-casein OS=Equus caballus OX=9796 GN=CSN3 PE=1 SV=2

MKSFFLVVNILALTLPLFLGAEVQNEQPTCHKNDERFFDLKTVKYIPIIYVNLSSPRYEP

IYYQHRLALLINNQHMPYQYYARPAAVRPHVQIPQWQVLPNIYPSTVVRHPCPHPSFIAI  
PPKKLQEITVIPKINTIATVEPTPIPTPEPTVNNAVIPDASSEFIIASTPETTTVPVTSP  
VVQKL

>tr|Q8SPR1|Q8SPR1\_HORSE Alpha s1 casein OS=Equus caballus OX=9796 PE=2  
SV=1

MKLLILTCLVAVALARPKLPHRQPEIIQNEQDSREKVLKERKFPSFALEYINELNRQREL  
LKEKQKDEHKEYLIEDPEQQESSSTSSSEEVVPINTEQKRIPREDMLYQHTLEQLRRLSK  
YNQLQLQAIHAQEQLIRMKENSQRKPMRVVNQEQAYFYLEPFQPSYQLDVYPYAAWFHPA  
QIMQHVAYSPFHDTAKLIASENSEKTDIIPW

>tr|D2KAS0|D2KAS0\_HORSE Alpha-S2-casein variant B OS=Equus caballus  
OX=9796 GN=CSN1S2 PE=2 SV=1

MKFFIFTCLLAVALAKHNMEHRSSSEDSVNISQEKFKQEKYVVIPTSKESICSTSCEEAT  
RNINEMESAKFPTEREEKEVEEKHHLKQLNKINQFYEKLNFLQYLQALRQPRIVLTPWDQ  
TKTGDSPFIPVNTQLFTSEEIPKKTVDMESTEVEVTEKTELTEEEKNYLKLLYYEKFTL  
PQYFKIVRQHQTMDPRSHRKTNSYQIIPVLRYP

>tr|A0A0C5DH76|A0A0C5DH76\_HORSE Alpha-S2-casein variant A OS=Equus  
caballus OX=9796 GN=CSN1S2 PE=2 SV=1

MKFFIFTCLLAVALAKHNMEHRSSSEDSVNISQEKFKQEKYVVIPTSKESICSTSCEEAT  
RNINEMESAKFPTVEYSSSSSEESAKFPTEREEKEVEEKHHLKQLNKINQFYEKLNFLQ  
YLQALRQPRIVLTPWDQTKTGDSPFIPVNTQLFTSEEIPKKTVDMESTEVEVTEKTEL  
EEEKNYLKLLYYEKFTLPQYFKIVRQHQTMDPRSHRKTNSYQIIPVLRYP

>sp|P02670|CASK\_CAPHI Kappa-casein OS=Capra hircus OX=9925 GN=CSN3  
PE=1 SV=2

MMKSFFLVVTILALTLPFLGAQEONQEOPICCEKDERFFDDKIAKYIPIQYVLSRYPYSG  
LNYQQRPVALINNQLPYPYAKPVAVRSPAQTLQWQVLPNTVPAKSCQDQPTTLARHP  
HPLSFMaipPKKDQKTEVPAINTIASAEPTVHSTPTTEAIVNTVDNPEASSESIASAS  
ETNTAQVTSTEV

>sp|P18626|CASA1\_CAPHI Alpha-S1-casein OS=Capra hircus OX=9925  
GN=CSN1S1 PE=1 SV=2

MKLLILTCLVAVALARPKHPINHRGLSPEVPNENLLRFVVPFPEVFRKENINELSKDIG  
SESTEDQAMEDAKQMKAGSSSSSEEEIVPNSAEQKYIQKEDVPSERYLGYLEQLLRLKKNY  
VPQLEIVPKSAEEQLHSMKEGNPAHQKQPMIAVNQELAYFYQQLFRQFYQLDAYPSGAWY  
YLPLGTQYTDAPSFSDIPNPIGSENSGKTTMPLW

>sp|P33049|CASA2\_CAPHI Alpha-S2-casein OS=Capra hircus OX=9925  
GN=CSN1S2 PE=2 SV=1

MKFFIFTCLLAVALAKHKMEHVSSSEEPINIFQEIYKQEKNMIAIHRKEKLCTTSCEEV  
RNANEEYSIRSSEESA EVAPEEIKITVDDKHQKALNEINQFYQKFPQYLQYPYQGPI  
VLNPDQVQRNAGPFTPTVNREQLSTSEENSKTIDMESTEVEFTKTKLTEEEKNRLNFL  
KKISQYYQKFAWPQYLKTVDQHQAAMKWPQPKTNAIPYVRYL

>sp|P33048|CASB\_CAPHI Beta-casein OS=Capra hircus OX=9925 GN=CSN2 PE=2  
SV=1

MKVLILACLVALAIAREQEELNVVGETVESLSSSEESITHINKKIEKFQSEEQQQTEDEL  
QDKIHPFAQAQSLVYPFTGPIPNLQNILPLTQTPVVVPPFLQPEIMGVVKVETMVPK  
HKEMPFKYPVEPFTESQSLTLTDVEKLHLPLPLVQSWMHQPPQPLSPTVMFPPQSVLSL  
SQPKVLPVPQKAVPQRDMPIQAFLLYQEPVLGPVGRPFPIV

>sp|P02754|LACB\_BOVIN Beta-lactoglobulin OS=Bos taurus OX=9913 GN=LGB  
PE=1 SV=3

MKCLLLALALTCGAQLIVTQTMKGLDIQKVAGTWYSLAMAASDISLLDAQSAPLRVYVE  
ELKPTPEGDLEILLQKWENGECAQKKIIAEKTKIPAVFKIDALNENKVLVLDTDYKYYLL  
FCMENSAAEPEQSLACQCLVRTPEVDDEALEKFDKALKALPMHIRLSFNPTQLEEQCHI

>tr|B2YKY6|B2YKY6\_CAPHI Beta-lactoglobulin (Fragment) OS=Capra hircus  
OX=9925 GN=BLG PE=3 SV=1  
LNENKVLVLDTDYKKYLLFCMENSAEPEQSLACQCLVRTPEVDKEALEKFDKALKALPMH  
IRLAFNPTQLE

>sp|P02662|CASA1\_BOVIN Alpha-S1-casein OS=Bos taurus OX=9913 GN=CSN1S1  
PE=1 SV=2  
MKLLILTCLVAVALARPKHPIKHQGLPQEVLNENLLRFFVAPFPEVFGKEKVNELSKDIG  
SESTEDQAMEDIKQMEAESISSSEEIVPNSVEQKHIQKEDVPSERYLGYLEQLLRLLKKYK  
VPQLEIVPNSAEERLHSMKEGIHAQQKEPMIGVNQELAYFYPELFRQFYQLDAYPSGAWY  
YVPLGTQYTDAPSFSDIPNPIGSENSEKTTMPLW

>sp|P02666|CASB\_BOVIN Beta-casein OS=Bos taurus OX=9913 GN=CSN2 PE=1  
SV=2  
MKVLILACLVALALARELEELNVPGEIVESLSSSEESITRINKKIEKFQSEEQQQTEDEL  
QDKIHPFAQTQSLVYFPFGPIPNLQNIPLTQTPVVVPPFLQPEVMGVSKVKEAMAPK  
HKEMPFKYPVEPFTESQSLTLTDVENLHLPLLLQSWMHQPHQPLPPTVMFPPQSVLSL  
SQSKVLPVPQKAVPYPQRDMPIQAFLLYQEPVLGPVRGPFPIIV

>sp|P02668|CASK\_BOVIN Kappa-casein OS=Bos taurus OX=9913 GN=CSN3 PE=1  
SV=1  
MMKSFFLVVTILALTLPFLGAQEQNQEPIRCEKDERFFSDKIAKYIPIQYVLSRYPSYG  
LNYYQQKPVALINNQLPYPYAKPAAVRSPAQILQWQVLSNTVPAKSCQAQPTTMAPHP  
HPLSFMAIPPKNQDKTEIPTINTIASGEPTSTPTTEAVESTVATLEDSPEVIESPPEI  
NTVQVTSTAV

>sp|P02663|CASA2\_BOVIN Alpha-S2-casein OS=Bos taurus OX=9913 GN=CSN1S2  
PE=1 SV=2  
MKFFIFTCLLAVALAKNTMEHVSSSEESIISQETYKQEKMAINPSKENLCSTFCKEVVR  
NANEEYSIGSSSEESAEVATEEVKITVDDKHYQKALNEINQFYQKFPQYLQYLYQGPIV  
LNPWDQVKRNAVPITPTLNREQLSTSEENSKKTVDMESTEVFTKKTKLTEEKNRLNFLK  
KISQRYQKFALPQYLKTVYQHQAAMKPWIQPKTKVIPYVRYL