

0 10 20 30 40 50

Bostaurus ---SDLELHPPSY**PWSHRGLLSSLDHTSIRRGFQVYKQVCS**SSCHSM**YVAYRHLV**--G-V
 Gallus ---GELELHPPAF**PWSHGGPLSALDHSSVRRGFQVYKQVCS**A**CHSMYVAFRNL**I--G-V
 Saccharocere MTAAEHGLHAPAY**AWSHNGPFETFDHASIRRGYQVYREVCAACHSLDRVAWRTL**V--G-V
 RbCapsulatus -----NSNVDP**HAFSFE**GIFGKY**DQAQLRRGFQVYNEVCSACHGMKFVP**IR**TLADDGGP**
 Rbsphaeroides -----HVEDV**PFSE**FG**PF**GT**FDQHQ**L**QRGLQVY**TE**VCAACHGMKFVP**IR**SLSEPGGP**

60 70 80 90 100 110

Bostaurus CYTEDE**AKALAE**VE-VQ**DGPNEDGEMFMRPGKLS**DF**PKPYPNPEAARAANNGAL**P**PDL**
 Gallus THTEAE**AKALAE**VE-VQ**DGPDENGELFMRPGKIS**DF**PKPYPNPEAARADNNGAL**P**PDL**
 Saccharocere SHTNEE**VRNMAE**FE-YD**DEPDEQGNPKRPGKLS**DI**PGPYPNPEAARAANQ**AL**P**P**D**L
 RbCapsulatus QLDPT**FVREYAAG**LDTI**ID--KDSG--EERDRKETDMFP**TRVGD-----GM**G**P**D**L
 Rbsphaeroides ELPED**QVRAYATQ**FT-VTD--**EETG--EDREGKPTDHF**PHSA**LE-----NAPDL**

120

Bostaurus **SYIVRARH**-----**GGEDYVFSLLTGY-CEPPTGVSLR**--**EGLYFN**PY**F**
 Gallus **SYIVYARH**-----**GGEDYVFSLLTGY-CDPPAGVVVR**--**EGLHYN**PY**F**
 Saccharocere **SLIVKARH**-----**GGCDYIFSLTGYPDEPPAGVALP**--**PGSNYN**PY**F**
 RbCapsulatus **SVM**AKARAGFSGPAGSGMNQLFKGM**GGPEYIYNYVIGF**-EEN**PECA**PEG-ID**G**YYY**NKTF**
 Rbsphaeroides **SLM**AKARAGFHGPMGTGISQLFN**GI**GG**PEYIYSVLTGF**PEEP**PKCAE**GHEPD**G**F**YYNRAF**

160 170 180 190

Bostaurus P-----**GQAIGMAPPYIYNEVLEFDDGTPATMSQVAKDVCTFLRWAAE**
 Gallus P-----**GQAIGMAPPYIYNEILEYDDGTPATMSQIAKDVCTFLRWAAE**
 Saccharocere P-----**GGSIAMARVLFDDMVEYEDGTPATTSQMAKDVTTFLNWC**AE
 RbCapsulatus QIGGV**PD**TCKDAAGVKITH**G**SWAR**MPPPLVDDQV**TYED**GTPATVDQMAQDVSAFLMWAAE**
 Rbsphaeroides QNGSV**PD**TCKDANGVKTT**A**GSW**IAMPPPLMDDLVEYADGHDASVHAM**AED**VSAFLMWAAE**

200 210 220 230 240 250

Bostaurus **PEHDHRKRMGLKMLLMMGLLLPLVYAMKRHKWSVLKSRK**LAYRPPK---
 Gallus **PEHDQRKRMGLKMLLISALLTSLLYMKRHKWSVLKSRK**MAYRPPK---
 Saccharocere **PEHDERKRLGLKTVIILSSLYLLSIWVKKFKWAGIKTRK**FVFNPPK**PRK**
 RbCapsulatus **PKLVARKQMG**L**VAMV**ML**LGLLSV**ML**YL**T**NKRLW**AP**YK**GH**KA-----**
 Rbsphaeroides **PKLMARKQAG**FT**AVMFL**TV**LSVLLYL**T**NKRLW**AG**VK**G**K**K**T**NV-----