AM854\_6DE 1 MLHRWLALCFLASFAVTGCGLFSKEKVGMDIVGVPFSAGRVEKVYFDFNKYEIKGSGKKV  
AM854\_Dawn 1 MLHRWLALCFLASFAVTGCGLFSKEKVGMDIVGVPFSAGRVEKVYFDFNKYEIKGSGKKV  
AM854\_C51 1 MLHRWLALCFLASFAVTGCGLFSKEKVGMDIVGVPFSAGRVEKVYFDFNKYEIKGSGKKV  
Am854\_C52 1 MLHRWLALCFLASFAVTGCGLFSKEKVGMDIVGVPFSAGRVEKVYFDFNKYEIKGSGKKV  
AM854\_EMΦ 1 MLHRWLALCFLASFAVTGCGLFSKEKVGMDIVGVPFSAGRVEKVYFDFNKYEIKGSGKKV  
AM854\_N3574 1 MLHRWLALCFLASFAVTGCGLFSKEKVGMDIVGVPFSAGRVEKVYFDFNKYEIKGSGKKV  
AM854\_N4506 1 MLHRWLALCFLASFAVTGCGLFSKEKVGMDIVGVPFSAGRVEKVYFDFNKYEIKGSGKKV  
AM854\_PR 1 MLHRWLALCFLASFAVTGCGLFSKEKVGMDIVGVPFSAGRVEKVYFDFNKYEIKGSGKKV  
AM854\_VA 1 MLHRWLALCFLASFAVTGCGLFSKEKVGMDIVGVPFSAGRVEKVYFDFNKYEIKGSGKKV  
AM854\_StM 1 MLHRWLALCFLASFAVTGCGLFSKEKVGMDIVGVPFSAGRVEKVYFDFNKYEIKGSGKKV  
AMF\_640 1 MLHRWLALCFLASFAVTGCGLFSKEKVGMDIVGVPFSAGRVEKVYFDFNKYEIKGSGKKV  
ACIS\_00486 1 MLHRWLALCLLASLAVTGCELFNKEKVNIDIGGVPLSAGRVEKVYFDFNKYEIKGSGKKV  
  
  
AM854\_6DE 61 LLGLVERMKADKRSTLLIIGHTDSRGTEEYNLALGERRANAVKEFILGCDRSLSPRISTQ  
AM854\_Dawn 61 LLGLVERMKADKRSTLLIIGHTDSRGTEEYNLALGERRANAVKEFILGCDRSLSPRISTQ  
AM854\_C51 61 LLGLVERMKADKRSTLLIIGHTDSRGTEEYNLALGERRANAVKEFILGCDRSLSPRISTQ  
Am854\_C52 61 LLGLVERMKADKRSTLLIIGHTDSRGTEEYNLALGERRANAVKEFILGCDRSLSPRISTQ  
AM854\_EMΦ 61 LLGLVERMKADKRSTLLIIGHTDSRGTEEYNLALGERRANAVKEFILGCDRSLSPRISTQ  
AM854\_N3574 61 LLGLVERMKADKRSTLLIIGHTDSRGTEEYNLALGERRANAVKEFILGCDRSLSPRISTQ  
AM854\_N4506 61 LLGLVERMKADKRSTLLIIGHTDSRGTEEYNLALGERRANAVKEFILGCDRSLSPRISTQ  
AM854\_PR 61 LLGLVERMKADKRSTLLIIGHTDSRGTEEYNLALGERRANAVKEFILGCDRSLSPRISTQ  
AM854\_VA 61 LLGLVERMKADKRSTLLIIGHTDSRGTEEYNLALGERRANAVKEFILGCDRSLSPRISTQ  
AM854\_StM 61 LLGLVERMKADKRSTLLIIGHTDSRGTEEYNLALGERRANAVKEFILGCDRSLSPRISTQ  
AMF\_640 61 LLGLVERMKADKRSTLLIIGHTDSRGTEEYNLALGERRANAVKEFILGCDRSLSPRISTQ  
ACIS\_00486 61 LLGLVERMKADKMSTLLIVGHTDSRGTEEYNLALGERRANAVKEFILGCDRSLSPRISTQ  
  
  
AM854\_6DE 121 SRGKAEPEVLVYSSDFKEAEKAHAQNRRVVLIVECQHSVSPKKKMAIKWPFSFGRSAAKQ  
AM854\_Dawn 121 SRGKAEPEVLVYSSDFKEAEKAHAQNRRVVLIVECQHSVSPKKKMAIKWPFSFGRSAAKQ  
AM854\_C51 121 SRGKAEPEVLVYSSDFKEAEKAHAQNRRVVLIVECQHSVSPKKKMAIKWPFSFGRSAAKQ  
Am854\_C52 121 SRGKAEPEVLVYSSDFKEAEKAHAQNRRVVLIVECQHSVSPKKKMAIKWPFSFGRSAAKQ  
AM854\_EMΦ 121 SRGKAEPEVLVYSSDFKEAEKAHAQNRRVVLIVECQHSVSPKKKMAIKWPFSFGRSAAKQ  
AM854\_N3574 121 SRGKAEPEVLVYSSDFKEAEKAHAQNRRVVLIVECQHSVSPKKKMAIKWPFSFGRSAAKQ  
AM854\_N4506 121 SRGKAEPEVLVYSSDFKEAEKAHAQNRRVVLIVECQHSVSPKKKMAIKWPFSFGRSAAKQ  
AM854\_PR 121 SRGKAEPEVLVYSSDFKEAEKAHAQNRRVVLIVECQHSVSPKKKMAIKWPFSFGRSAAKQ  
AM854\_VA 121 SRGKAEPEVLVYSSDFKEAEKAHAQNRRVVLIVECQHSVSPKKKMAIKWPFSFGRSAAKQ  
AM854\_StM 121 SRGKAEPEVLVYSSDFKEAEKAHAQNRRVVLIVECQHSVSPKKKMAIKWPFSFGRSAAKQ  
AMF\_640 121 SRGKAEPEVLVYSSDFKEAEKAHAQNRRVVLIVECQHSVSPKKKMAIKWPFSFGRSAAKQ  
ACIS\_00486 121 SRGKAEPEILVYSSDFKEAEKAHAQNRRVVLIMECQHAASPKKARVSRWPFSFGRSSATQ  
  
  
AM854\_6DE 181 DDVGSSEVSDENPVDDSSEGIASEEAAPEEGVVSEEAAEEAPEVAQDSSAGVVAPE  
AM854\_Dawn 181 DDVGSSEVSDENPVDDSSEGIASEEAAPEEGVVSEEAAEEAPEVAQDSSAGVVAPE  
AM854\_C51 181 DDVGSSEVSDENPVDDSSEGIASEEAAPEEGVVSEEAAEEAPEVAQDSSAGVVAPE  
Am854\_C52 181 DDVGSSEVSDENPVDDSSEGIASEEAAPEEGVVSEEAAEEAPEVAQDSSAGVVAPE  
AM854\_EMΦ 181 DDVGSSEVSDENPVDDSSEGIASEEAAPEEGVVSEEAAEEAPEVAQDSPAGVVAPE  
AM854\_N3574 181 DDVGSSEVSDENPVDDSSEGIASEEAAPEEGVVSEEAAEEAPEVAQDSSAGVVAPE  
AM854\_N4506 181 DDVGSSEVSDENPVDDSSEGIASEEAAPEEGVVSEEAAEEAPEVAQDSSAGVVAPE  
AM854\_PR 181 DDVGSSEVSDENPVDDSSEGIASEEAAPEEGVVSEEAAEEAPEVAQDSSAGVVAPE  
AM854\_VA 181 DDVGSSEVSDENPVDDSSEGIASEEAAPEEGVVSEEAAEEAPEVAQDSSAGVVAPE  
AM854\_StM 181 DDVGSSEVSDENPVDDSSEGIASEEAAPEEGVVSEEAAEEAPEVAQDSSAGVVAPE  
AMF\_640 181 DDVGSSEVSDENPVDDSSEGIASEEAAPEEGVVSEEAAEEAPEVAQDSSAGVVAPE  
ACIS\_00486 181 QDNGGGTVAAGSPGED----------APAEVVEPEETQE--------------AGE  
  
  
Fig. S3. Amino acid alignment of AM854 for all *A. marginale* strains and isolates and *A. marginale* ss. *centrale*. AMF\_640 is the Florida strain homolog of AM854. ACIS\_00486 is the *A. marginale* ss. *centrale* ortholog of AM854.