K02055 ABC.SP.S; putative spermidine/putrescine transport system substrate-binding protein SAR116_1723 ABC transporter substrate-binding protein K02053 ABC.SP.P; putative spermidine/putrescine transport system permease protein SAR116_1791 ABC transporter K02053 ABC.SP.P; putative spermidine/putrescine transport system permease protein SAR116_1722 ABC transporter (permease) K02053 ABC.SP.P; putative spermidine/putrescine transport system permease protein SAR116_0758 binding-protein-dependent transport systems inner membrane component K02054 ABC.SP.P1; putative spermidine/putrescine transport system permease protein SAR116_1792 ABC transporter K02054 ABC.SP.P1; putative spermidine/putrescine transport system permease protein SAR116_0759 polyamine ABC transporter SAR116_1721 ABC transporter K02054 ABC.SP.P1; putative spermidine/putrescine transport system permease protein K02052 ABC.SP.A; putative spermidine/putrescine transport system ATP-binding protein SAR116_1793 spermidine/putrescine ABC transporter K02052 ABC.SP.A; putative spermidine/putrescine transport system ATP-binding protein SAR116_0761 spermidine/putrescine ABC transporter ATPase subunit K02052 ABC.SP.A; putative spermidine/putrescine transport system ATP-binding protein SAR116_1724 spermidine/putrescine ABC transporter ATPase subunit SAR116_1786 putative ABC transport system K01999 livK; branched-chain amino acid transport system substrate-binding protein K01999 livK; branched-chain amino acid transport system substrate-binding protein | SAR116_1760 branched-chain amino acid ABC transporter SAR116_1458 Leu/Ile/Val-binding protein precursor K01999 livK; branched-chain amino acid transport system substrate-binding protein SAR116_0783 branched-chain amino acid ABC transporter K01999 livK; branched-chain amino acid transport system substrate-binding protein K01999 livK; branched-chain amino acid transport system substrate-binding protein SAR116_0346 high affinity branched-chain amino acid ABC transporter K01999 livK; branched-chain amino acid transport system substrate-binding protein SAR116_0930 Extracellular ligand-binding receptor SAR116_1788 ABC transporter ATP-binding protein K01997 livH; branched-chain amino acid transport system permease protein K01997 livH; branched-chain amino acid transport system permease protein SAR116_1459 inner-membrane translocator K01997 livH; branched-chain amino acid transport system permease protein SAR116_0929 branched-chain amino acid ABC transporter K01997 livH; branched-chain amino acid transport system permease protein SAR116_0780 inner-membrane translocator K01997 livH; branched-chain amino acid transport system permease protein SAR116_0347 branched-chain amino acid permease protein SAR116_1757 branched-chain amino acid ABC transporter K01997 livH; branched-chain amino acid transport system permease protein SAR116_0348 inner-membrane translocator K01998 livM; branched-chain amino acid transport system permease protein | SAR116_0779 inner-membrane translocator K01998 livM; branched-chain amino acid transport system permease protein K01998 livM; branched-chain amino acid transport system permease protein SAR116_0931 inner-membrane translocator K01998 livM; branched-chain amino acid transport system permease protein SAR116_1460 probable high-affinity branched-chain amino acid transport permease protein K01998 livM; branched-chain amino acid transport system permease protein SAR116_1787 ABC-type branched-chain amino acid transport system permease component SAR116_1756 branched-chain amino acid ABC transporter K01998 livM; branched-chain amino acid transport system permease protein | K01995 livG; branched-chain amino acid transport system ATP-binding protein SAR116_1759 branched-chain amino acid ABC transporter K01995 livG; branched-chain amino acid transport system ATP-binding protein SAR116_1785 ABC transporter permease protein K01995 livG; branched-chain amino acid transport system ATP-binding protein SAR116_0932 high affinity branched-chain amino acid ABC transporter K01995 livG; branched-chain amino acid transport system ATP-binding protein SAR116_0782 ABC transporter related protein K01995 livG; branched-chain amino acid transport system ATP-binding protein SAR116_0349 ABC transporter related protein K01995 livG; branched-chain amino acid transport system ATP-binding protein SAR116_1461 ATP-binding protein of ABC transporter natA K01996 livF; branched-chain amino acid transport system ATP-binding protein SAR116_0350 branched-chain amino acid ABC transporter K01996 livF; branched-chain amino acid transport system ATP-binding protein SAR116_0781 ABC transporter related protein K01996 livF; branched-chain amino acid transport system ATP-binding protein SAR116_0928 ABC transporter related protein K01996 livF; branched-chain amino acid transport system ATP-binding protein SAR116_1462 ABC transporter related protein SAR116_1758 branched-chain amino acid ABC transporter K01996 livF; branched-chain amino acid transport system ATP-binding protein K20276 bapA; large repetitive protein SAR116_1779 hypothetical protein K20276 bapA; large repetitive protein | SAR116_1755 hypothetical protein K01897 ACSL; long-chain acyl-CoA synthetase [EC:6.2.1.3] SAR116_0193 Putative long-chain-fatty-acid--CoA ligase (Long-chain acyl-CoA synthetase) K10914 crp; CRP/FNR family transcriptional regulator, cyclic AMP receptor protein SAR116_1547 cAMP-binding protein - catabolite gene activator and regulatory subunit of cAMP-dependent protein kinase SAR116_2065 cAMP-binding protein - catabolite gene activator and regulatory subunit of cAMP-dependent protein kinase K10914 crp; CRP/FNR family transcriptional regulator, cyclic AMP receptor protein SAR116_2090 hypothetical protein K10914 crp; CRP/FNR family transcriptional regulator, cyclic AMP receptor protein K09823 zur; Fur family transcriptional regulator, zinc uptake regulator SAR116_2224 transcriptional regulator K01497 ribA; GTP cyclohydrolase II [EC:3.5.4.25] SAR116_1657 GTP cyclohydrolase II SAR116_0163 bifunctional deaminase-reductase K11752 ribD; diaminohydroxyphosphoribosylaminopyrimidine deaminase / 5-amino-6-(5-phosphoribosylamino)uracil reductase [EC:3.5.4.26 1.1.1.193] SAR116_1529 Twin-arginine translocation pathway signal K02035 ABC.PE.S; peptide/nickel transport system substrate-binding protein K02035 ABC.PE.S; peptide/nickel transport system substrate-binding protein SAR116_0603 extracellular solute-binding protein family 5 SAR116_0067 hypothetical ABC transporter K02035 ABC.PE.S; peptide/nickel transport system substrate-binding protein K02035 ABC.PE.S; peptide/nickel transport system substrate-binding protein SAR116_0952 extracellular solute-binding protein SAR116_0602 binding-protein-dependent transport systems inner membrane component K02033 ABC.PE.P; peptide/nickel transport system permease protein SAR116_1528 binding-protein-dependent transport systems inner membrane component K02033 ABC.PE.P; peptide/nickel transport system permease protein K02033 ABC.PE.P; peptide/nickel transport system permease protein SAR116_0066 peptide ABC transporter permease protein-like protein SAR116_0951 binding-protein-dependent transport systems inner membrane component K02033 ABC.PE.P; peptide/nickel transport system permease protein K02034 ABC.PE.P1; peptide/nickel transport system permease protein SAR116_0601 Binding-protein-dependent transport systems inner membrane component SAR116_1526 binding-protein-dependent transport systems inner membrane component K02034 ABC.PE.P1; peptide/nickel transport system permease protein SAR116_0065 hypothetical ABC transporter permease K02034 ABC.PE.P1; peptide/nickel transport system permease protein SAR116_0950 peptide ABC transporter K02034 ABC.PE.P1; peptide/nickel transport system permease protein SAR116_1525 Oligopeptide/dipeptide ABC transporter K02031 ddpD; peptide/nickel transport system ATP-binding protein K02031 ddpD; peptide/nickel transport system ATP-binding protein SAR116_0949 Oligopeptide/dipeptide ABC transporter SAR116_0600 putative ABC transporter K02031 ddpD; peptide/nickel transport system ATP-binding protein K02031 ddpD; peptide/nickel transport system ATP-binding protein SAR116_0064 ABC transporter ATP-binding protein

SAR116_1794 spermidine/putrescine ABC transporter

K02055 ABC.SP.S; putative spermidine/putrescine transport system substrate-binding protein

Log₂ fold change

-6 -4 -2 0 2 4 6