

BnLPAT2-C4 : ATGGCGATGGCTGCAGCTG---TAATCGTGCCTTTAGGCCTTCTCTTCTTCATCTTTGGTCTCTCGTGAACCTCCTCCTAGCAATTTGCTA---T----- : 90
BnLPAT2-A4 : ATGGCGATAACTGCAGCTG---TAATAGTGCCTTTAGGCCTTCTCTTCTTCATCTCTGGTCTCTCATGAACCTCCTCAGGCAATTTGTATGTACTCGTTAGACCTCTGTCTAAGAACACATACAGAA : 127
BnLPAT2-A7 : ATGGCGATGGCAGCAGCAG---TGATTGTGCCTTTGGGGATTCTCTTCTTCATTTCTGGCCTCGTTGTCAATCTCCTCAGGCAGTTTGTCTATGTCCTCGTTTCGACCTCTGTCTAAGAACACATACAGAA : 127
BnLPAT2-C7 : ATGGCGATGGCAGCAGCAGCAGTGATTGTGCCTTTGGGGATTCTCTTCTTCATTTCTGGCCTCGTTGTCAATCTCCTCAGGCAGTTTGTCTATGTCCTCATTTCGACCTCTGTCTAAGAACACATACAGAA : 130
BnLPAT2-A9 : ATGGCGATGGCAGCAGCTG---TGATTGTGCCTCTGGGAATTCTCTTCTTCATATCTGGTCTCGTTGTCAATCTCCTCAGGCAGTTTGTCTATGTTCTTATTTCGACCTCTGTCTAAGAACACGTACAGAA : 127
BnLPAT2-C8 : ATGGCGATGGCAGCAGCTG---TGATTGTGCCTCTGGGCATTCTCTTCTTCATATCTGGTCTCGTTGTCAATCTCCTCAGGCAGTTTGTCTATGTTCTTATTTCGACCTCTGTCTAAGAACACGTACAGAA : 127
BnLPAT2-A07 : ----- : -
atggcgat c gcagc g t at gtgcct t gg ttctcttcttcat t tgg ctc t t aa ctct c gc tttg ta t

BnLPAT2-C4 : -----C-----TTGTCTGGATCGTTGACTGGTGGGCAGGAGTCAAGATCAAAGTCTTTACTGATAATGAGACGTTTAATCGAATGGGCAAAGAACACGCTCT : 182
BnLPAT2-A4 : AAATCAACCGGGTGGTTCGAGAAACTTTGTGGCTTGAGCTTGTCTGGATCGTTGACTGGTGGGCAGGAGTCAAGATCAAAGTGTCTGCTGATAATGAGACCTTCAGTCGAATGGGAAAAGAACATGCTCT : 257
BnLPAT2-A7 : AGATCAACCGGGTGGTTCGAGAAACCTTGTGGTTGAGCTTGTCTGGATCGTTGACTGGTGGGCAGGAGTCAAGATCAAAGTCTTTGCTGATGATGAGACCTTTAATCGAATGGGCAAAGAACATGCTCT : 257
BnLPAT2-C7 : AGATCAACCGTGTGGTTCGAGAAACCTTGTGGTTGAGCTTGTCTGGATCGTTGACTGGTGGGCAGGAGTCAAGATCAAAGTGTCTGCTGATGATGAGACCTTTAATCGAATGGGCAAAGAGCATGCTCT : 260
BnLPAT2-A9 : AAATCAACCGGGTGGTTCGAGAAACCTTGTGGCTTGAGCTTGTCTGGATTGTTGACTGGTGGGCAGGAGTCAAGATCAAAGTGTCTGCTGATAATGAGACCTTCAATCGAATGGGCAAAGAACATGCTCT : 257
BnLPAT2-C8 : AAATCAACCGGGTGGTTCGAGAAACCTTGTGGCTTGAGCTTGTCTGGATTGTTGACTGGTGGGCAGGAGTCAAGATCAAAGTGTCTGCTGATAATGAGACCTTCAATCGAATGGGCAAAGAACATGCTCT : 257
BnLPAT2-A07 : ----- : -
c ttgtctggat gttgactggtgggc gg gt a gatc aagt ttt ctgat atgagac tt a tcgaatggg aaaga ca gctct

BnLPAT2-C4 : TGTCGTTTGTAAATCACCGAAGTGATATTGATTGGCTTGTGGGATGGATTCTCGCTCAGAGGTCAGGTTGCCTGGGAAGCGCATTAGCTGTAAACGAAGAAGTCTTCCAAATTTCTCCAGTCAAAGGCTGG : 312
BnLPAT2-A4 : TGTCGTTTGTAAATCACCGAAGTGATATCGATTGGCTTGTGGGATGGATTCTGGCTCAGAGGTCAGGTTGCCTGGGAAGTGCCTTAGCTGTAAACGAAGAATTCTAACAAGTTTCTTCCAGTCATAGGCTGG : 387
BnLPAT2-A7 : TGTCGTTTGTAAATCACCGAAGTGATATTGATTGGCTCGTGGGATGGATTCTCGCTCAGAGGTCAGGTTGCCTAGGAAGCGCATTAGCTGTGATGAAGAAGTCTTCCAAATTTCTCCAGTCATAGGCTGG : 387
BnLPAT2-C7 : TGTCGTTTGTAAATCACCGAAGTGATATTGATTGGCTCGTGGGATGGATTCTGGCTCAGAGGTCAGGTTGCCTAGGAAGCGCATTAGCTGTGATGAAGAAGTCTTCCAAATTTCTTCCAGTCATAGGCTGG : 390
BnLPAT2-A9 : TGTCGTTTGTAAATCACCGAAGTGATATTGATTGGCTTGTGGGATGGATTCTGGCTCAGAGATCAGGTTGCCTGGGAAGCGCATTGGCTGTAATGAAGAAGTCTTCTAAATTTCTTCCAGTCATAGGCTGG : 387
BnLPAT2-C8 : TGTCGTTTGTAAATCACCGAAGTGATATTGATTGGCTTGTGGGATGGATTCTGGCTCAGAGATCAGGTTGCCTGGGAAGCGCATTGGCTGTAATGAAGAAGTCTTCTAAATTTCTTCCAGTCATAGGCTGG : 387
BnLPAT2-A07 : ----- : -
tgctcgtttgtaatcacccaagtgatattgattggct gtgggatggattct gctcagag tcaggttgcct ggaag gc tt gctgt a gaagaa tct aa tttct ccagtca aggctgg

BnLPAT2-C4 : TCAATGTGGTTCTCAGAGTATCTATTTCTGGAAAGAAAATGGGTAAGGATGAAAGCACAAATAAAGTCAGGTCTTCAACGCTTGAAAGACTTCCCACAGCCCTTCTGGCTAGCCCTTTTGTGGAGGGAA : 442
BnLPAT2-A4 : TCAATGTGGTTCTCAGAGTTCTGTTTTTGGAAAGAAAATGGGCAAAGGATGAAAGCACAAATAAAGTCAGGTCTTCAACGCTTGAAAGACTTCCCACAGCCCTTCTGGCTAGCCCTTTTGTGGAGGGAA : 517
BnLPAT2-A7 : TCAATGTGGTTCTCCAGATATCTGTTTTCTGAAAGAAAATGGGCAAAGGATGAAAGCACTTTAAAGTCAGGTCTTCAACGCTTGAAAGACTTCCCACGGCCCTTCTGGCTAGCTCTTTTGTGGAGGGAA : 517
BnLPAT2-C7 : TCAATGTGGTTCTCGGAGTATCTGTTTTCTGAAAGAAAATGGGCAAAGGATGAAAGCACTTTAAAGTCAGGTCTTCAACGCTTGAAAGACTTCCCACGGCCCTTCTGGTTAGCCCTTTTGTGGAGGGAA : 520
BnLPAT2-A9 : TCAATGTGGTTCTCGGAGTATCTGTTTTCTGAAAGAAAATGGGCAAAGGATGAAAGCACTTTAAAGTCAGGTCTTCAACGCTTGAAAGACTTCCCACAGCCCTTCTGGTTAGCACTTTTGTGGAGGGAA : 517
BnLPAT2-C8 : TCAATGTGGTTCTCGGAGTATCTGTTTTCTGAAAGAAAATGGGCAAAGGATGAAAGCACTTTAAAGTCAGGTCTTCAACGCTTGAAAGACTTCCCACAGCCCTTCTGGTTAGCACTTTTGTGGAGGGAA : 517
BnLPAT2-A07 : -----ATGTGTGTTTATCCAAATCA----ACAGTCAGGTCTTCAACGCTTGAACTACTTCCCACGTCCTTTCTGGTTAGCCCTTTTGTGGAGGGAA : 88
tcaatgtggttctc gagt tct ttt t gaaagaaa TGgG aaaggatgAAAgCac tAaAGTCAGGTCTTCAACGCTTGAA gACTTCCC CctTtTCTGG TAGC CTTTTTGTgGAGGGaA

BnLPAT2-C4 : CTCGCTTTACAGAGACGAAACTTAAAGCAGCACAAGAGTACGCAGCTTCCTCTGAGTTGCCTATCCCTCGAAATGTCTTGATTCCCTCGTACC AAAGGTTTGTGTCAACAGTTATTAATATGCGTTCATT : 572
BnLPAT2-A4 : CCCGCTTTACAGAGACAAA ACTTAAAGCAGCACAAGAAATACGCAGCGTCCCTCTGAGTTGCCTATCCCTCGTAATGTCTTGATTCCCTCGTACC AAAGGTTTGTGTCAACGTTAAGTAATATGCGTTCATT : 647
BnLPAT2-A7 : CCCGCTTTACAGAGAGCAA ACTTAAAGCAGCACAAGAGTACGCAGCTTCCTCTGAGTTGCCTGTCCCTCGAAATGTCTTGATTCCCTCGCACC AAAGGATTTGTGTCAACGTTAAGTAATATGCGTTCATT : 647
BnLPAT2-C7 : CCCGTTTACAGAGAGCAA ACTTAAAGCAGCACAAGAGTACGCAGCTTCCTCTGAGTTGCCTGTCCCTCGAAATGTCTTGATTCCCTCGCACC AAAGGTTTGTGTCAACGTTAAGTAATATGCGTTCATT : 650
BnLPAT2-A9 : CCCGCTTTACAGAGGCTAA ACTTAAAGCAGCACAAGAGTACGCTGCC TCCTCTGAGCTGCCTGTCCCTCGAAATGTCTTGATTCCCTCGCACC AAAGGTTTGTGTCAACGTTAAGTAATATGCGTTCATT : 647
BnLPAT2-C8 : CCCGCTTTACAGAGGCTAA ACTTAAAGCAGCACAAGAGTACGCTGCC TCCTCTGAGCTGCCTGTCCCTCGAAATGTCTTGATTCCCTCGCACC AAAGGTTTGTGTCAACGTTAAGTAATATGCGTTCATT : 647
BnLPAT2-A07 : CCCTCTTTACTGAGGCAA ACTTAAAG---T-----GTACGCAGCTCCTCTGAGTTGCCTATCCCTCGAAATGTCTTGATTCCCTCGCGCCAAAG--TAAGTTTCAATAAGTT--T-----TCTTCTTT : 200
CcCgcTT AcaGAG C AA ACTTAAAGcagcacaagagTACGC GC TCCTCTgAG TGCCT TCCCTCGaAATGT TTGATTCCCTCG aCCAAAGg TttGTgTCA c GTta Taa atgCgTTCaTT

BnLPAT2-C4 : TGTCCAGTCATTTATGATATGACCGTGGCTATTCCAAAATCTTCTCCTCCCCCAACAATGCTAAGACTATTCAAAGGACAACCTTCATT-----ATCCATTTCTTTTACATTAGAAATTTT : 689
BnLPAT2-A4 : TGTCCAGCCATTTATGATATGACCGTGGCTATTCCAAA ACTTCTCCACCCCAACAATGCTAAGACTATTCAAAGGACAACCTTCTGTGGTGCATGTTACATAAAGTGTCACTCGATGAAAGACTTG : 777
BnLPAT2-A7 : TGTGCCAGCCATATATGATATGACCGTGGCTATTCCAAA ACTTCTCCACCCCAACGATGCTAAGACTATTCAAAGGACAACCTTCTGTGGTGCATGTTACATCAAGTGTCACTCGATGAAAGACTTG : 777
BnLPAT2-C7 : TGTGCCAGCCATATATGATATGACCGTGGCTATTCCAAA ACTTCTCCACCCCAACGATGCTAAGACTATTCAAAGGACAACCTTCTGTGGTGCATGTTACATCAAGTGTCACTCGATGAAAGACTTG : 780

BnLPAT2-A9 : TGTCCAGCCATTATGATATGACCGTGGCTATTCACAAAACATCTCCACCCCAACGATGCTCAGACTATTCAAAGGACAACCTTCTGTGGTGCATGTTACATCAAGTGTCACTCGATGAAAGACTTG : 777
BnLPAT2-C8 : TGTCCAGCCATTATGATATGACCGTGGCTATTCACAAAACATCTCCACCCCAACGATGCTCAGACTATTCAAAGGACAACCTTCTGTGGTGCATGTTACATCAAGTGTCACTCGACGAAAGACTTG : 777
BnLPAT2-A07 : TG-CACATTCTTGGGCAACTTGCCTCTCTCACTG----- : 234
Tgt cCAg CaT tatgAtaTgaCcgTggctAtTcAAAA c tctcc ccccaac atgct agactattca aggaca ccttc t at a t t c t a a a t t

BnLPAT2-C4 : C---ATTCTG--GA-----CACACTCAT-CTCATCTCGGCTCTGTGGTACAGGATGCACCTGTTAGACAAACACATAGCGGCAGATACTTTCTCCCATCAGCAAGAACAGAACATTGGCCGTCCCATG : 805
BnLPAT2-A4 : CCTGAATCAGATGAGGCAATTGCACAGTGGTGCATAAATCAGTT-TGTGGCTAAGGATGCACCTGTTAGACAAACACATAGCGGCAGACACTTTCCCTGGTCAGCAGGAGCAGAACATTGGCCGTCCCATG : 906
BnLPAT2-A7 : CCTGAATCAGAAAGACGAAATTGCACAGTGGTGCAGAGATCAGTT-TGTGACTAAGGATGCACCTGTTAGACAAACACATAGCTGCAGACACTTTCCCGGTCAGAAAGAACAGAACATTGGCCGTCCCATG : 906
BnLPAT2-C7 : CCTGAATCAGAAAGACGAAATTGCACAGTGGTGCAGAGATCAGTT-TGTGGCTAAGGATGCACCTGTTAGACAAACACATAGCTGCAGACACTTTCCCGGTCAGAAAGAACAGAACATTGGCCGTCCCATG : 909
BnLPAT2-A9 : CCTGAATCAGATGACGCAATTGCACAGTGGTGCAGAGATCAGTT-TGTGGCTAAGGATGCACCTATTAGACAAACACATAGCTGCAGACACTTTCCCTGGTCAGCAAGAACAGAACATTGGCCGTCCCATG : 906
BnLPAT2-C8 : CCTGAATCAGATGACGCAATTGCACAGTGGTGCAGAGATCAGTT-TGTGGCTAAGGATGCACCTATTAGACAAACACATAGCTGCAGACACTTTCCCTGGTCAGCAAGAACAGAACATTGGCCGTCCCATG : 906
BnLPAT2-A07 : ----- : -
c a t c g g a c a c a t t c a t c g t t g t g a g g a t g c a c t t t a g a c a a a c a c a t a g c g c a g a a c t t t c c t c a g a g a c a g a a c a t t g g c c g t c c c a t

BnLPAT2-C4 : TAGTCTCTTGCAGTGGTTCTATCATGGGCCTGCATACTAACTCTCGGAGCAATGAAATTCTTGCACTGGTCAAATCTCTTTTCTCATGGAAAGGCATGGCGTTATCAGCGCTTGGTCTAGGAAAGATTAC : 935
BnLPAT2-A4 : AAGTCTCTTGCAGTGGTTTATCATGGGCCTGCCTACTAACTCTAGGAGCAATTAATTCTTACTGTTGATCTCTTTTCTCATGGAAAGGCATGGCGTTGTCGGCACTTGGTCTAGGTGTCAT-C : 1035
BnLPAT2-A7 : AAGTCTCTTGCAGTGGTTCTGTCATGGGCATGCTACTAACTCTTGGAGCAATGAAGTTCTTACTGTTCAAATCTCTTTTCTCATGGAAAGGCATCGCATTATCAGCGCTTGGTCTAGGCATCAT-C : 1035
BnLPAT2-C7 : AAGTCTCTTGCAGTGGTTGTCATGGGCATGCCTACTAACTCTTGGAGCAATGAAGTTCTTACTGTTCAAATCTCTTTTCTCATGGAAAGGCATCGCATTATCAGCGCTTGGTCTAGGCATCAT-C : 1038
BnLPAT2-A9 : AAGTCTCTTGCAGTGGTTCTATCATGGTCATGCCTACTGATTCTTGGAGCAATGAAGTTCTTACTGTTCAAATCTCTTCTCTCATGGAAAGGCATCGCGTTTTCGGCGCTGGGTCTAGGCATCAT-C : 1035
BnLPAT2-C8 : AAGTCTCTTGCAGTGGTTCTATCATGGTCATGCCTACTGATTCTTGGAGCAATGAAGTTCTTACTGTTCAAATCTCTTCTCTCATGGAAAGGCATCGCGTTTTCGGCGCTGGGTCTAGGCATCAT-C : 1035
BnLPAT2-A07 : ----- : -
a g t c t c t t g c a g t g g t t t t c a t g g c t g t a c t a t c t g g a g c a a t t c t t c a c t g g t c a a t c t c t t t c t c t a a a g g c a t g c t t t c g c c t g g t c t a g g t c

BnLPAT2-C4 : GGTTAGCAGATATTATAAAGTG-TGCGAAAGTGTCTGTAATACCATTCGCAGTTTCATATGGGTGAAGTTTGTAGTGTTCACAAGCTTAAATAAATCTCTATAAGCCAGAGGATTATCCTAAGCACACTGA : 1064
BnLPAT2-A4 : ACTCTCTGTATGCAGATCTTGATCCGTTCCTCTCAGTCAGAGCGTTGG-----ACCC-----CAGCCAAGACAAAATGACCATC---ACCACGCAG---GATCATCTCT---CCCAA : 1132
BnLPAT2-A7 : ACTCTCTGTATGCAGATCTTGATCCGTTCCTCTCAGTCAGAGCGTTCA-----ACACCTGCCAAAGTCGC---TCCAGCCAAGCCAAAGGACAATC---ACCAGTCAG---GATCATCTCT---CCCAA : 1147
BnLPAT2-C7 : ACTCTCTGTATGCAGATCTTGATCCGTTCCTCTCAGTCAGAGCGTTCA-----ACACCTGCCAAAGTGGC---CCCAGCCAAGCCAAAGGACAAC---ACCAGTCAG---GATCATCTCT---CCCAA : 1150
BnLPAT2-A9 : ACTCTCTGTATGCAGATCTTGATCCGTTCCTCTCAGTCAGAGCGTTCT-----ACCCAGCCAAAGTCGT---TCCAGCCAAGCCAAAGGACAATCATAACGACTCAG---GATCATCTCT---CCCAA : 1150
BnLPAT2-C8 : ACTCTCTGTATGCAGATCTTGATCCGTTCCTCTCAGTCAGAGCGTTCT-----ACCCAGCCAAAGTCGT---TCCAGCCAAGCCAAAGGACAATCATAACGACTCAG---GATCATCTCT---CCCAA : 1150
BnLPAT2-A07 : ----- : -
t c g a a g t c g t t c g t a c t t a c a a g a a a c a a c a g g a a t c t c c a

BnLPAT2-C4 : TATAACTGAAGCACACTTGAAGAGACAATGACGGTTATGTTTTTGAGGAAGTTGGAAGATGCTGAGCATGCTATATTTATTTTTGCAGCTTATGCAAGTCATATTACTGATAAGTTTGAAGGAGATTAC : 1194
BnLPAT2-A4 : CAGATGTGGAG---AAGGACAAG----- : 1152
BnLPAT2-A7 : CAGAAGTGGAGGAGAAGCAGAAGTAA----- : 1173
BnLPAT2-C7 : CAGAAGTGGAGGAGAAGCAGAAGTAA----- : 1176
BnLPAT2-A9 : CAGAAGTGGAG---AAGCAGAAGTAA----- : 1173
BnLPAT2-C8 : CAGAAGTAGAG---AAGCAGAAGTAA----- : 1173
BnLPAT2-A07 : ----- : -
a a t a g a a a g

BnLPAT2-C4 : GGTAGCAGATATTATAAAGATTATGGAAGTGTCCGTAGCAGTTCAATGAGCCGAGGCCAAGGGTACGGAGGCGGGGTGATCTTGTATGCAGATGCACAGAAACGTA AAAAAGCAAGCAACAGATGAGCAGG : 1324
BnLPAT2-A4 : ----- : -
BnLPAT2-A7 : ----- : -
BnLPAT2-C7 : ----- : -
BnLPAT2-A9 : ----- : -
BnLPAT2-C8 : ----- : -
BnLPAT2-A07 : ----- : -

1440 * 1460 * 1480 * 1500 * 1520 * 1540 * 1560

BnLPAT2-C4 : GTTATGAAGAAAGTTGTGACGATGAGAAGAACGAACCATCGTTCACTGGTGGAGTAGATGACCTTGTGATGGATAATGAGGATGAGAACACAGAAGTGGCTTATTGTGGTGATCCTCAAGTGATATGGGA : 1454
BnLPAT2-A4 : ----- : -
BnLPAT2-A7 : ----- : -
BnLPAT2-C7 : ----- : -
BnLPAT2-A9 : ----- : -
BnLPAT2-C8 : ----- : -
BnLPAT2-A07 : ----- : -

* 1580 *
BnLPAT2-C4 : AGAGTTGCACAATCAACTTCTCAATTCCGCAGAA : 1488
BnLPAT2-A4 : ----- : -
BnLPAT2-A7 : ----- : -
BnLPAT2-C7 : ----- : -
BnLPAT2-A9 : ----- : -
BnLPAT2-C8 : ----- : -
BnLPAT2-A07 : ----- : -