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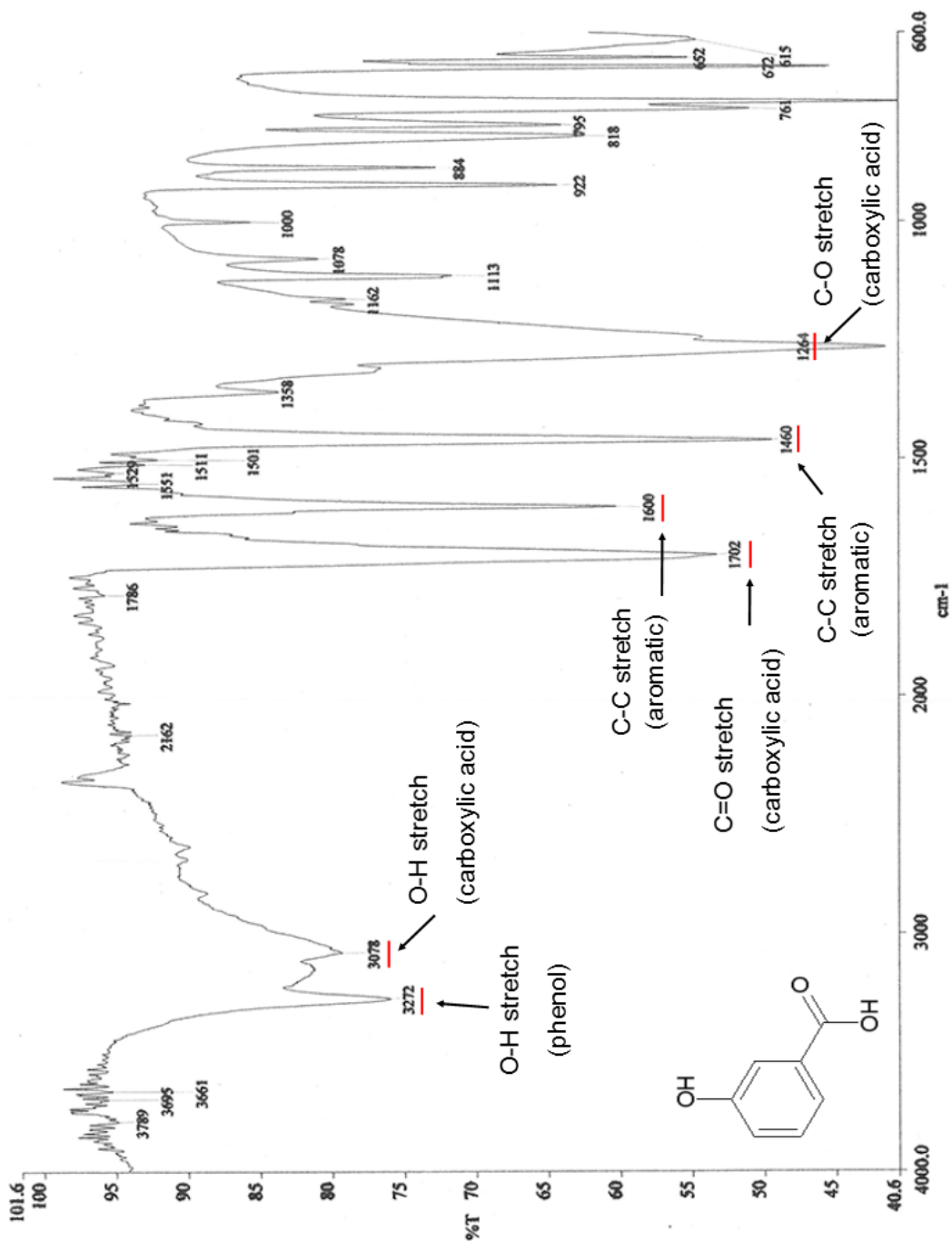
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Appendix

APPENDIX A – Chemical synthesis spectra.

A.1 – FT-IR spectra of compound isolated from DCC catalysed esterification. The compound was identified as starting material.

APPENDIX B – DNA sequencing.**B.1 Partial sequence of pCW57.1-BCAT1, pCEP-Forward primer:**

GCTCACAAGTTTGTACAAAAAAGCAGGCTTCATGAAGGATTGCAGTAACGGATGCTCCGCAGAG
 TGTACCGGAGAAGGAGGATCAAAAGAGGTGGTGGGGACTTTTAAGGCTAAAGACCTAATAGTCA
 CACCAGCTACCATTTTAAAGGAAAAACCAGACCCCAATAATCTGGTTTTTGGAACTGTGTTCAC
 GGATCATATGCTGACGGTGGAGTGGTCCTCAGAGTTTGGATGGGAGAAACCTCATATCAAGCCT
 CTTCAGAACCTGTCATTGCACCCTGGCTCATCAGCTTTGCACTATGCAGTGGAAATTATTTGAAG
 GATTGAAGGCATTTTCGAGGAGTAGATAATAAAATTCGACTGTTTCAGCCAAACCTCAACATGGA
 TAGAATGTATCGCTCTGCTGTGAGGGCAACTCTGCCGGTATTTGACAAAGAAGAGCTCTTAGAG
 TGTATTC AACAGCTTGTGAAATGGATCAAGAATGGGTCCCATATTCAACATCTGCTAGTCTGT
 ATATTCGTCCTACATTCATTGGAAGTGAAGCCTTCTCTTGGAGTCAAGAAGCCTACCAAAGCCCT
 GCTCTTTG TACTCTTGAGCCCAGTGGGACCTTATTTTTCAAGTGGAAACCTTTAATCCAGTGTCC
 CTGTGGGCCAATCCCAAGTATGTAAGAGCCTGGAAAGGTGGAAGTGGGGACTGCAAGATGGGAG
 GGAATTACGGCTCATCTCTTTTTGCCCAATGTGAAGCAGTAGATAATGGGTGTCAGCAGGTCCT
 GTGGCTCTATGGAGAGGACCATCAGATCACTGAAGTGGGAACTATGAATCTTTTTCTTTACTGG
 ATAAATGAAGATGGAGAAGAAGAAGTGGCAACTCCTCCACTAGATGGCATCATTCTTCCAGGAG
 TGACAAGGCGGTGCATTCTGGACCTGGCACATCAGTGGGGTGAATTTAAGGTGTCA

Sequence is a 100% match for “Homo sapiens branched chain amino acid
 transaminase 1 (BCAT1), transcript variant 1, mRNA” NCBI Reference Sequence:
 NM_005504.6.

B.2 Partial sequence of pCW57.1-BCAT2:

AAGTTTGTACAAAAAAGCAGGCTGGCGCGCCATGGCCGCTGCTGCTCTGGGACAGATTTGGGCC
 AGAAAGCTGCTGAGCGTGCCCTGGCTGCTGTGCGGCCCTAGAAGATACGCCAGCAGCAGCTTCA
 AGGCCGCCGACCTGCAGCTGGAAATGACCCAGAAGCCCCACAAGAAGCCCGGACCTGGCGAGCC
 TCTGGTGTTCGGCAAGACCTTCACCGACCACATGCTGATGGTGAATGGAACGACAAGGGCTGG
 GGCCAGCCCAGAATCCAGCCCTTCCAGAACCTGACCCTGCACCCTGCCAGCAGCTCCCTGCACT
 ACTCTCTGCAGCTGTTTCGAGGGCATGAAGGCCTTTAAGGGCAAGGACCAGCAAGTGGCGCTGTT
 CAGACCCTGGCTGAACATGGACCGGATGCTGCGGAGCGCCATGAGACTGTGCCTGCCAGCTTC
 GACAAGCTGGAAGTGTGGAATGCATCCGGCGGCTGATCGAGGTGGACAAGGACTGGGTGCCCCG
 ATGCCGCCGGAACAAGCCTGTATGTGCGGCCTGTGCTGATCGGCAACGAGCCTAGCCTGGGAGT

GTCCCAGCCTACCAGAGCCCTGCTGTTTCGTGATCCTGTGTCCCGTGGGCGCCTACTTTCCTGGC
 GGATCTGTGACCCCAGTGTCCCTGCTGGCCGACCCCGCCTTTATTAGAGCTTGGGTGGGAGGCG
 TGGGCAACTACAAGCTGGGCGGAACTACGGCCCCACCGTGCTGGTGCAGCAGGAAGCTCTGAA
 GCGGGGCTGCGAACAGGTGCTGTGGCTGTACGGACCCGACCACCAGCTGACCGAAGTGGGCACC
 ATGAACATCTTCGTGTACTGGACCCACGAGGACGGCGTGCTGGAACCTCGTGACCCCTCCTCTGA
 ACGGCGTGATCCTGCCTGGCGTCGTGCGGCAGTCTCTGCTGGATATGGCCCAGACCTGGGGCGA
 GTTCCGGGTGGTGG

Amino acid sequence produced by translation of this sequence is the same as “Homo sapiens branched chain amino acid transaminase 2 (BCAT2), transcript variant a, mRNA” NCBI Reference Sequence: NM_001190.3.

B.3 Partial sequence of pLKO-BCAT1:

cttataagttccctatcagtgatagagacaCCGGCTGCCGGTATTTGACAAAGAACTCGAGTTC
 TTTGTCAAATACCGGCAGTTTTTaattctcgacctcgagacaaatggcagtattcatccacaat
 tttaaaagaaaaggggggattggggggtacagtgacaggggaaagaatagtagacataatagcaa
 cagacatacaaaactaaagaattacaaaaacaaattacaaaaattcaaaattttcgggtttatta
 cagggacagcagagatccactttggccgcggtctcgagggggtgggggtgcgcttttccaagg
 cagccctgggtttgcgacagggacgcggtgctctgggcgtggttccgggaaacgcagcggcgcc
 gaccctgggtctcgcacattcttcacgtccgttcgcagcgtcaccggatcttcgcccgtacc
 ttgtgggccccccggcgacgcttctgctccgcccctaagtcgggaaggttcttgcggttcgc
 ggcgtgccggacgtgacaaacggaagccgcacgtctcactagtagacctcgacagcggacagcgc
 cagggagcaatggcagcgcgaccgacgatgggctgtggccaatagcggctgctcagcagggc
 gcgccgagagcagcggccgggaaggggcggtgcgggaggcggg

The uppercase letters match the shRNA sequence provided by Bernhard Radlwimmer for the pLKO-BCAT1 sequence.