

Supplementary Data

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**A Mutation in *LIPN*, Encoding Epidermal
Lipase N, Causes a Late Onset Form
of Autosomal-Recessive Congenital Ichthyosis**

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Table S1. List of genes sequenced from the disease interval

Symbol	OMIM	Putative function
AGAP11		ankyrin repeat and GTPase domain Arf GTPase activating protein 11
ATAD1		ATPase family, AAA domain containing 1
BMPR1A	_____	bone morphogenetic protein receptor, type IA
C10orf116		chromosome 10 open reading frame 116
C10orf99		chromosome 10 open reading frame 99
CH25H	_____	cholesterol 25-hydroxylase
CTSLL1		cathepsin L-like 1
FAM25A		family with sequence similarity 25, member A
FAM35A		family with sequence similarity 35, member A
GHITM		growth hormone inducible transmembrane protein
KIAA1128		
LIPK		lipase, family member K
LIPM		lipase, family member M
LIPN		lipase, family member N
LOC100131699		hypothetical LOC100131699
LOC100288691		similar to hCG2040565
LOC100288717		similar to hCG2039035
LOC100289138		hypothetical protein LOC100289138
LOC439994		hypothetical LOC439994
LOC642934		hypothetical LOC642934
LOC728190		hypothetical LOC728190
LRIT1		leucine-rich repeat, immunoglobulin-like and transmembrane domains 1
LRIT2		leucine-rich repeat, immunoglobulin-like and transmembrane domains 2
MINPP1	_____	multiple inositol polyphosphate histidine phosphatase, 1
MIR346	_____	microRNA 346
MMRN2	_____	multimerin 2
SNCG	_____	synuclein, gamma (breast cancer-specific protein 1
WAPAL	_____	wings apart-like homolog (Drosophila

Table S2. Sequence of oligonucleotides used to sequence three epidermal lipase genes

NAME	PRIMER	PRODUCT SIZE
LIPN-Exon1F	TCTGCCTTCGGTGTTATTCA	
LIPN-Exon1R	CAACAGGACCTTTCGTAACCT	
LIPN-Exon2F	CCTGGTGCTACAAATTCAGA	
LIPN-Exon2R	CAAAGAGTGAGCCTCCCTGA	
LIPN-Exon3F	CTGTGATGTTTCCGACATGC	
LIPN-Exon3R	GCTTCTTGCTGTTACCCTCC	
LIPN-Exon4F	AAGAAGTGAGCAAGTGCTCTGA	
LIPN-Exon4R	CCAACATAAAGGTGAACTCCTG	
LIPN-Exon5F	CCCAGTATGATCACGATAGAAGG	
LIPN-Exon5R	CACAAGCACATACCACAGAG	
LIPN-Exon6F	GGGCTTGTTGTCCTTGTTGT	
LIPN-Exon6R	AAGGGTTTGAATACCATATGAA	
LIPN-Exon7F	TTTGCTAATTCTGTGCATCATTT	
LIPN-Exon7R	TGTTAACAGGGTCAATTCTGTCT	
LIPN-Exon8F	TTCTGGTGATCTAGGAGCCC	
LIPN-Exon8R	TGCCACCAAATGACAGGTAG	
LIPN-Exon9F	GGCCATTGTCCACATTCATT	
LIPN-Exon9R	GGGACAACCTCATTGTTGGT	
LIPM-EXON1F	ATTGGAAGAGGGAATTGCAG	
LIPM-EXON1R	CTCTTCTAGTATGAATCACCACCAT	
LIPM-EXON1F	CGCCTGTGGAAAGGAAGTAG	
LIPM-EXON1R	GGAATGGCCTTAGCTGTAGAA	
LIPM-EXON2F	AAAGCAAGGACTTTCACTGTGTT	
LIPM-EXON2R	CACAAGGAAATCGTGACTGC	
LIPM-EXON3F	AGGAAATCAAGGCACACACC	
LIPM-EXON3R	CCAAATACTAGAAGCCGTAATTTT	
LIPM-EXON4F	GGGCTTGTTTGTAACCTGG	
LIPM-EXON4R	CAGGGATAGCTAGTGTCGTATGC	
LIPM-EXON5-6F	GGAGAGGTAAGATGCAGTCACA	
LIPM-EXON5-6R	CACTGGCATTAGCTCTCCCT	
LIPM-EXON7F	CCCTGGAGATTTGGTCTTGA	
LIPM-EXON7R	CCCTGGCTTATCTAAATGGTGT	
LIPM-EXON8F	GTGCACACTGGGTAGCACAT	
LIPM-EXON8R	AACGTCCCTGTCATACATTTCC	
LIPM-EXON9F	CTTCACCACAACAGATGGCA	

LIPM-EXON9R	TTCTGCCTTCATGGGTCCTA	
LIPK-EXON1F	TGGTTAAAGCACAGCCTAGAA	
LIPK-EXON1R	CACTGGAGGAATTGCTGAAA	
LIPK-EXON2F	TGGGACAGGTGCCTTTAGTT	
LIPK-EXON2R	TGCTTGACTTCTCCCAGGAC	
LIPK-EXON3F	GACTAGATCCCAGGTTTGCC	
LIPK-EXON3R	TCCTTCTTGTGGATTCCATTG	
LIPK-EXON4-5F	TGACTTGCAATCAAGGTGACA	
LIPK-EXON4-5R	TTCCCTGAACTCTGCTAATAAGAT	
LIPK-EXON6F	TGTGCAGTCCTTCTTTGAACTA	
LIPK-EXON6R	CAGTTGCCATACAATCCAGG	
LIPK-EXON7F	AGGTGGAGCCTGCAGTGA	
LIPK-EXON7R	CCCAGACACTGAGGACAAGG	
LIPK-EXON8F	TGTTTCTAAAGACTGGGGCATAA	
LIPK-EXON8R	GCATATGGCAAGAACCCAAT	
LIPK-EXON9F	TGCACGAGAATGGTTTCAAG	
LIPK-EXON9R	TCATATCCCACCCACATTGA	