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SUPPLEMENTARY MATERIAL

corresponding to:

Characterization and expression analysis of *mcoln1.1* and *mcoln1.2*, the putative zebrafish co-orthologs of the gene responsible for human mucolipidosis type IV

ANNA BENINI[1], ANDREA BOZZATO[1], SILVIA MANTOVANELLI[1], LAURA CALVARINI[1], EDOARDO GIACOPUZZI[1], ROBERTO BRESCIANI[1], SILVIA MOLERI[2], DANIELA ZIZIOLI[1], MONICA BELTRAME[2], GIUSEPPE BORSANI*[,1]

***Address correspondence to:** Giuseppe Borsani. Dipartimento di Scienze Biomediche e Biotecnologie, Universita' degli Studi di Brescia, Viale Europa 11, 25123 Brescia, Italy. Tel: +39-030-371-7241. Fax: +39-030-370-1157. e-mail: gborsani@med.unibs.it

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TABLE S1

OLIGONUCLEOTIDES AND CLONING VECTORS USED TO GENERATE CHIMERIC CONSTRUCTS

Gene name	Cloning vector	Primer name and sequence
Hs *MCOLN1*	pCMV-Tag5A	**MY129Eco**: aggaattcATGACAC CTTCGCAGCCTACAC **MY129Sal-pCMV**: aagtcgacATTCACCAGCAGCGAATG
Dr *mcoln 1.1*	pCMV-Tag5A	**MLAZf-Eco:** aggaattcATGGCCGCAGTGGACCCCAATAAGC **MLAZf-Sal:** aagtcgacGTTGACAAGGAGGACGTCCTCATA
	pEGFPC2	**MLAZf-Eco:** aggaattcATGGCCGCAGTGGACCCCAATAAGC **MLAZFSal-pegfp:** aagtcgacTTCAGTTGACAAGGAGGACGTCCTCATA
Dr *mcoln 1.2*	pEGFPC2	**ML1.2Zf-Eco**: ggaattcATGGCGAGCTCTTTTCACAGACCCT **ML1.2Zf-BamH1:** cggatccgCTAGCTAAAGCAGCAGAAGAGCGAG

Lower case nucleotides indicate primer tails with recognition sites for the restriction enzymes selected for the cloning strategy.

TABLE S2

LIST OF PRIMER AND PROBE SETS FOR TAQMAN REAL-TIME-PCR REACTIONS

Gene name	Primer sequence
mcoln1.1	Forward: GCTGGTGGTCACAGACTGTATTG Probe: AGTGAACCCTTTATCCACTCCCACTGCA Reverse: TCAACGGAGACGACATGTTTG
mcoln1.2	Forward: CCTCCACACGCAGAAGCA Probe: TCCATGAGCACATCCGATACGCCA Reverse: GTATTTGATTCTGTCCCAGACGTCT
mcoln2	Forward: CTCGGACCCTACCATGAGAAGT Probe: TCGAGTGGCCGAGTGCCTCTTCTC Reverse: TCAACGGAGACGACATGTTTG
mcoln3.1	Forward: TCACACCACTGACTGACAAACAAC Probe: CTAATTATCTGCTGTGATGGACGACTCCCG Reverse: GAACTGGTCTGAGTGTGAGGCTC
mcoln3.2	Forward: CCACACAGGATTTCTCCTACAGACT Probe: TCATGTCCAGTCAGCACAGTAAAAGCGTCT Reverse: ATGGTCTGAGAGGCTGGAGTTC
ef1α	Forward: CGATTCCACCGCATTTGTAGA Probe: TCCACCACCACCGGCCATCTG Reverse: CCACGTCGACTCCGGAAA

TABLE S3

OLIGONUCLEOTIDES USED AS PRIMERS TO AMPLIFY BY PCR SPECIFIC REGIONS OF *MCOLN1.1* AND *MCOLN1.2* TRANSCRIPTS TO BE USED FOR THE GENERATION OF RNA PROBES

Primer name	Primer sequence
mcoln1.1 1F-T3	cagagatgcaattaaccctcactaaagggagaCCCATTCATATCACCGACCT
mcoln1.1 2F-T3	cagagatgcaattaaccctcactaaagggagaTGTTGTTTGATCTGGCCGTC
mcoln1.1 3F-T3	cagagatgcaattaaccctcactaaagggagaATGGCCGCAGTGGACCCCAATA
mcoln1.1 1R-T7	ccaagcttctaatacgactcactatagggagaGGGCACTAAATGAGCTCAACA
mcoln1.1 2R-T7	ccaagcttctaatacgactcactatagggagaCCTGCTGCAGTGGGAGTGGATA
mcoln1.2 1F-T3	cagagatgcaattaaccctcactaaagggagaATGGCGAGCTCTTTTCACAGAC
mcoln1.2 1R-T7	ccaagcttctaatacgactcactatagggagaAGTAACAACATGAGGGTCTATG

Upper case nucleotides are transcript specific sequences, lower case nucleotides include the promoter region recognized by either T7 or T3 RNA polymerases

TABLE S4

ANTISENSE AND SENSE RNA PROBES OBTAINED BY *IN VITRO* TRANSCRIPTION OF PCR PRODUCTS WITH EITHER T7 OR T3 RNA POLYMERASES

Probe name and dimension (nt)	PCR primer pair	PCR template	RNA polymerase
mcoln1.1 antisense probe 1 (507)	*mcoln1.1* 1F-T3 *mcoln1.1* 1R-T7	IMAGE Clone 5071815	T7
mcoln 1.1 sense probe 1 (507)	*mcoln1.1* 1F-T3 *mcoln1.1* 1R-T7	IMAGE Clone 5071815	T3
mcoln1.1 antisense probe 2 (1300)	*mcoln1.1* 2F-T3 *mcoln1.1* 1R-T7	IMAGE Clone 5071815	T7
mcoln1.1 sense probe 2 (1300)	*mcoln1.1* 2F-T3 *mcoln1.1* 1R-T7	IMAGE Clone 5071815	T3
mcoln1.1 antisense probe 3 (650)	*mcoln1.1* 3F-T3 *mcoln1.1* 2R-T7	pEGFP-C2-*mcoln1.1*	T7
mcoln1.1 sense probe 3 (650)	*mcoln1.1* 3F-T3 *mcoln1.1* 2R-T7	pEGFP-C2-*mcoln1.1*	T3
mcoln1.2 antisense probe 1 (650)	*mcoln1.2* 1F-T3 *mcoln1.2* 1R-T7	pEGFP-C2-*mcoln1.2*	T7
mcoln1.2 antisense probe 1 (650)	*mcoln1.2* 1F-T3 *mcoln1.2* 1R-T7	pEGFP-C2-*mcoln1.2*	T3