

Isolation and nucleotide sequence of the cDNA encoding human ventricular myosin light chain 2L.Dalla Libera^{1*}, E.Hoffmann, M.Floroff and G.Jackowski

Research Institute, The Hospital for Sick Children, Department of Clinical Biochemistry and Paediatrics, University of Toronto, Toronto, Canada and ¹CNR Unit for Muscle Biology and Physiopathology, Institute of General Pathology, University of Padova, Via Loredan 16, Padova, Italy
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Human ventricular plasmid library was constructed using the Okayama-Berger procedure (1). The library was screened with an oligonucleotide probe (17 mer) corresponding to a portion of myosin light chain 2 located near the amino terminus (2). A full length cDNA recombinant plasmid containing a 1,000 bp insert was isolated. The complete nucleotide sequence of the coding region was determined in M13 subclones using dideoxy chain termination method. Cardiac myosin light chains are particularly interesting for investigation of regulatory mechanisms, since their expression is switched not only during normal development but also in response to specific stimuli that affect the cardiovascular system. Furthermore the complete nucleotide sequence of HVLC2 will be useful in understanding the function and the evolution of this class of myosin light chain genes.

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1
ATG GCA CCT AAG AAA GCA AAG AAG AGA GCC GGG GGC GCC AAC TCC AAC GTG TTC TCC ATG TTC GAA CAG
Met Ala Pro Lys Lys Ala Lys Lys Arg Ala Gly Gly Ala Asn Ser Asn Val Phe Ser Met Phe Glu Gln
20
ACC CAA ATC CAG GAA TTT AAG GAG GCC TTC ACT ATC ATG GAC CAG AAC AGG GAT GGC TTC ATT GAC AAG
Thr Gln Ile Gln Glu Phe Lys Glu Ala Phe Thr Ile Met Asp Gln Asn Arg Asp Gly Phe Ile Asp Lys
40
AAC GAT CTG AGA GAC ACC TTT GCT GCC CTT CGA GTG AAC GTG AAA AAT GAA GAA ATT GAT GAA ATG
Asn Asp Leu Arg Asp Thr Phe Ala Ala Leu Arg Val Asn Val Lys Asn Glu Glu Ile Asp Glu Met
60
ATC AAG GAG GCT CCG GGT CCA ATT AAC TTT ACT GTG TTC CTC ACA ATG TTT GGG GAG AAA CTT AAG GGA
Ile Lys Glu Ala Pro Gly Pro Ile Asn Phe Thr Val Phe Leu Thr Met Phe Gly Glu Lys Leu Lys Gly
80
GCG GAC CCT GAG GAA ACC ATT CTC AAC GCA TTC AAA GTG TTT GAC CCT GAA GGC AAA GGG GTG CTG AAG
Ala Asp Pro Glu Glu Thr Ile Leu Asn Ala Phe Lys Val Phe Asp Pro Glu Gly Lys Gly Val Leu Lys
100
GCT GAT TAC GTT CCG GAA ATG CTG ACC ACG CAG GCG GAG AGG TTT TCC AAG GAG GAG GTT GAC CAG ATG
Ala Asp Tyr Val Arg Glu Met Leu Thr Thr Gln Ala Glu Arg Phe Ser Lys Glu Glu Val Asp Gln Met
120
TTC GCC GCC TTC CCC CCT GAC GTG ACT GGC AAC TTG GAC TAC AAG AAC CTG GTG CAC ATC ATC ACC CAC
Phe Ala Ala Phe Pro Pro Asp Val Thr Gly Asn Leu Asp Tyr Lys Asn Leu Val His Ile Ile Thr His
140
GGA GAA GAG AAG GAC TAG
Gly Glu Glu Lys Asp

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*To whom correspondence should be addressed.

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