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ERRATUM

Developmental expression and differential cellular localization of obscurin and obscurin-associated kinase in cardiac muscle cells

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Since the manuscript was prepared, additional information regarding the 5′ extent of the dual kinase isoform has been determined. The start site has been positively identified and confirmed across species. It is unusual in that it does not include the full kinase domain as was previously thought. This information has been confirmed and we would like to update the figure to reflect this.

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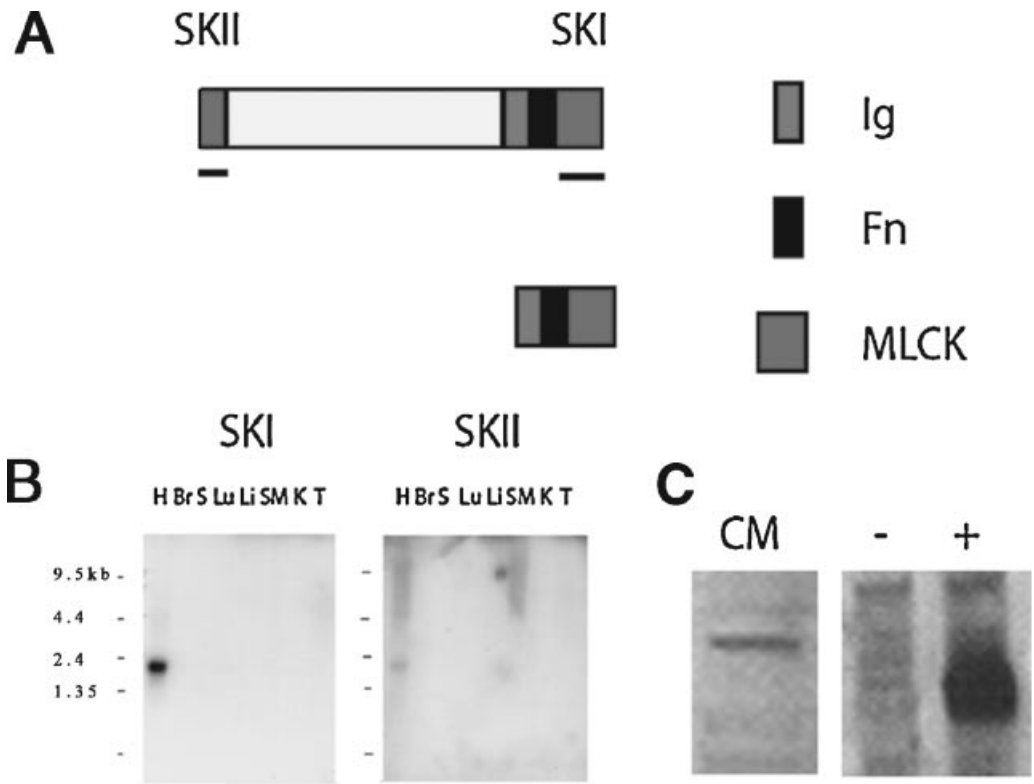

Fig. 1. A: Schematic representation of the obscurin-associated MLCK-like single and dual kinase isoforms. Putative functional domains identified by PROSITE search include one full and one partial serine threonine kinase (SKI and SKII, respectively), one immunoglobulin-like (Ig), and one fibronectin-like (Fn) domains. Antisense RNA and cDNA probes, for in situ and Northern analysis respectively, were prepared using cDNA sequence from the underlined regions. A polyclonal antibody (link 7) generated to human obscurin-associated MLCK-like kinase recognizes epitopes in the SKI domain (indicated by the pink square and short line on the right). B: Northern blot analysis of obscurin-MLCK mRNA expression in adult murine tissues. The single kinase isoform, detected with the SKI probe, is selectively expressed in the heart (H) and not detectable in other tissues including brain (Br), spleen (S), lung (Lu), liver (Li), skeletal muscle (SM), kidney (K), and testis (T). The dual kinase isoform (top of panel A), detected with the SKII probe, was expressed in the heart and skeletal muscle (SM). Note the 4.6 kb band in the SKII blot. Larger transcripts may reflect inclusion of the kinase domains at the end of the obscurin transcript. C: Western blot analysis using the anti-obscurin-MLCK-like terminal kinase antibody. The antibody detected the native obscurin-MLCK single kinase isoform in lysates from adult rat cardiac myocytes in culture and in lysates of Cos7 cells transfected with an obscurin-MLCK expression construct (a positive control, marked with +) but not with a control plasmid (a negative control, marked with -).