

MLC-2V

Cat.No. 310-2P; control peptide, 100 µg peptide (lyophilized)

Data Sheet

Reconstitution/ Storage	100 µg peptide, lyophilized. For reconstitution add 100 µl H ₂ O to get a 1mg/ml solution in PBS. Then aliquot and store at -20°C until use. Control peptides should also be stored at -20°C when still lyophilized!
Immunogen	Synthetic peptide corresponding to AA 3 to 14 from human MLC-2V (UniProt Id: P10916)
Recommended dilution	Optimal concentrations should be determined by the end-user.
matching antibodies	310 203
Remarks	This control peptide consists of the synthetic peptide (aa 3 - 14 of human MLC-2V) that has been used for immunization. It has been tested in preadsorption experiments and blocks efficiently and specifically the corresponding signal in Western blots. The amount of peptide needed for efficient blocking depends on the titer and on the affinity of the antibody to the antigen.

TO BE USED IN VITRO / FOR RESEARCH ONLY NOT TOXIC, NOT HAZARDOUS, NOT INFECTIOUS, NOT CONTAGIOUS

During cardiogenesis two major isoforms of myosin light chain **2** are co-expressed in a tightly regulated manner. **MLC-2V** is only present in the ventricle while MLC-2A is exclusively expressed in the atrium. Knock out studies revealed that the 2A isoform cannot substitute for the 2V variant in the ventricular chamber.

Recently it has been demonstrated that embryonic and adult stem cells can be differentiated into cardiomyocytes which may generate suitable replacements for damaged heart tissue in the future. These antibodies are useful tools to distinguish between ventricle and atrium specific cardiomyocytes.

Selected General References

Mechanism of spontaneous excitability in human embryonic stem cell derived cardiomyocytes.
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Selection of ventricular-like cardiomyocytes from ES cells in vitro.
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FASEB journal : official publication of the Federation of American Societies for Experimental Biology (2000) 14(15): 2540-8.

Transgenic remodeling of the contractile apparatus in the mammalian heart.
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