Synaptic Systems

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MLC-2V

Cat.No. 310 203; Polyclonal rabbit antibody, 50 µg specific antibody (lyophilized)

Data Sheet

Reconstitution/ Storage	50 µg specific antibody, lyophilized. Affinity purified with the immunogen. Rabbit serum albumin was added for stabilization. For reconstitution add 50 µl H_2O to get a 1mg/ml solution in PBS. Then aliquot and store at -20°C until use.
Applications	**WB**: 1 : 1000 (AP staining) **IP**: not tested yet **ICC**: not tested yet **IHC**: 1 : 200 **IHC-P/FFPE**: yes
Immunogen	Synthetic peptide corresponding to AA 3 to 14 from human MLC-2V (UniProt Id: P10916)
Reactivity	Reacts with: human (P10916). Other species not tested yet.
Specificity	Specific for MLC-2V, no cross-reactivity to MLC-2A.
matching control	310-2P

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

During cardiogenesis two major isoforms of **m**yosin **l**ight **c**hain **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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Transgenic remodeling of the contractile apparatus in the mammalian heart.
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