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CARDIOVASCULAR-A NEW NOVEL SOURCE OF CATESTATIN AND ITS PRECURSOR CHROMOGRANIN A

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Objective: To investigate the expression and distribution of catestatin and its precursor phromogranin A in tissue and cardiovascular cell levels.

Method Extract RNA from Wistar rat heart tissue, vascular tissue, cardiomyocytes, cardiac fibroblasts, vascular smooth muscle cells and vascular adventitial fibroblasts by Trizol, detect of CST precursor chromogranin A mRNA levels by RT-PCR. CST protein level was detected by ELISA after homogenate and centrifugation.

Results CST precursor chromogranin A mRNA expression and CST protein expression were detected in heart tissue, vascular tissue, cardiomyocytes, cardiac fibroblasts, vascular smooth muscle cells and vascular adventitial fibroblasts, CST protein expression was consistent with the mRNA expression of its precursor chromogranin A.

Conclusion (1) Catestatin and its precursor chromogranin A could be expressed in heart and vascular in tissue and cell level, cardiovascular may be a new novel source for catestatin and its precursor chromograninA. (2) Catestatin from cardiovascular source could possibly inhibit catecholamine release from peripheral vascular neurons in a paracrine feedback manner to achieve its role for the regulation of cardiovascular function (negative inotropic effect and antihypertensive effect).