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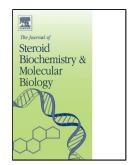
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## ACCEPTED MANUSCRIPT

1, 25-Dihydroxyvitamin-D3 prevents the development of diabetic cardiomyopathy in type 1 diabetic rats by enhancing autophagy via inhibiting the  $\beta$ -catenin/TCF4/GSK-3 $\beta$ /mTOR pathway

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Abbreviations: 1,25D3, 1,25-dihydroxyvitamin D3; VDR, vitamin D receptor; 25(OH)D, 25-dihydroxyvitamin D; DCM, diabetic cardiomyopathy; CQ, chloroquine; STZ, streptozotocin; lenti-shVDR, lentiviral vectors expressing a short hairpin RNA against VDR; TSC, tuberous sclerosis complex; TCF4, T-cell factor/lymphoid enhancer factor; GSK-3β, glycogen synthase kinase-3β; mTOR, mammalian target of rapamycin; LiCl, lithium chloride; Baf, bafilomycin A1; BW, body weight; HW, heart weight; TL, tibia length; CVF, collagen volume fraction; PCA, perivascular collagen area; LA, luminal area; HR, Heart rate; SBP, systolic blood pressure; DBP, diastolic blood pressure; MAP, mean arterial pressure; GFP, green fluorescent protein; EF, ventricular ejection fraction; FS, fractional shortening; HG, high glucose.

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