

1 α ,25-Dihydroxyvitamin D3 ameliorates diabetes-induced bone loss by attenuating FoxO1-mediated autophagy

Yixuan Jiang^{1,2}, Wenqiong Luo^{1,2}, Bin Wang^{1,2}, Zumu Yi¹, Ping Gong^{1,2}, Yi Xiong^{1,2,*}

¹ State Key Laboratory of Oral Diseases, National Clinical Research Center for Oral Diseases, West China Hospital of Stomatology, Sichuan University, Chengdu, China

² Department of Oral Implantology, West China Hospital of Stomatology, Sichuan University, Chengdu, China

* Corresponding author: Yi Xiong

E-mail: xiongraise@163.com (YX)

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Table S1 Detection of bone trabecular parameters in different groups.

Group	BMD (mg HA/cm ³)	BV/TV	Tb.N (/mm)	Tb.Sp (mm)
Ctrl	796.4 ± 16.35	0.59 ± 0.11	7.60 ± 0.99	0.36 ± 0.07
Ctrl-1,25D	808.6 ± 25.87	0.60 ± 0.05	7.20 ± 0.60	0.40 ± 0.03
DM	708.3 ± 10.04 ^{*#}	0.21 ± 0.06 ^{*#}	3.16 ± 0.46 ^{*#}	0.84 ± 0.13 ^{*#}
DM-1,25D	746.2 ± 15.07 ^{*#S}	0.37 ± 0.06 ^{*#S}	4.64 ± 1.01 ^{*#S}	0.66 ± 0.06 ^{*#S}

*p < 0.05, compared with Ctrl; #p < 0.05, compared with Ctrl-1,25D; \$p < 0.05, compared with DM. Ctrl: control; DM: diabetes mellitus; BMD: bone mineral density; BV/TV: bone volume per total volume; Tb.N: mean trabecular number; Tb.Sp: trabecular separation.

Table S2 Serological tests in different groups.

Group	Serum Alp (U/L)	Serum Ocn (ng/ml)	Serum glucose (mg/dl)
Ctrl	11.8 ± 2.77	273.3 ± 19.8	165.9 ± 14.4
Ctrl-1,25D	12.3 ± 1.56	295.0 ± 14.8	142.9 ± 18.4
DM	4.58 ± 1.47 ^{*#}	96.8 ± 19.3 ^{*#}	343.1 ± 20.9 ^{*#}
DM-1,25D	8.04 ± 1.23 ^{*#S}	185 ± 12.9 ^{*#S}	263.6 ± 26.7 ^{*#S}

*p < 0.05, compared with Ctrl; #p < 0.05, compared with Ctrl-1,25D; \$p < 0.05, compared with DM. Ctrl: control; DM: diabetes mellitus; Alp: alkaline phosphatase; Ocn: osteocalcin.

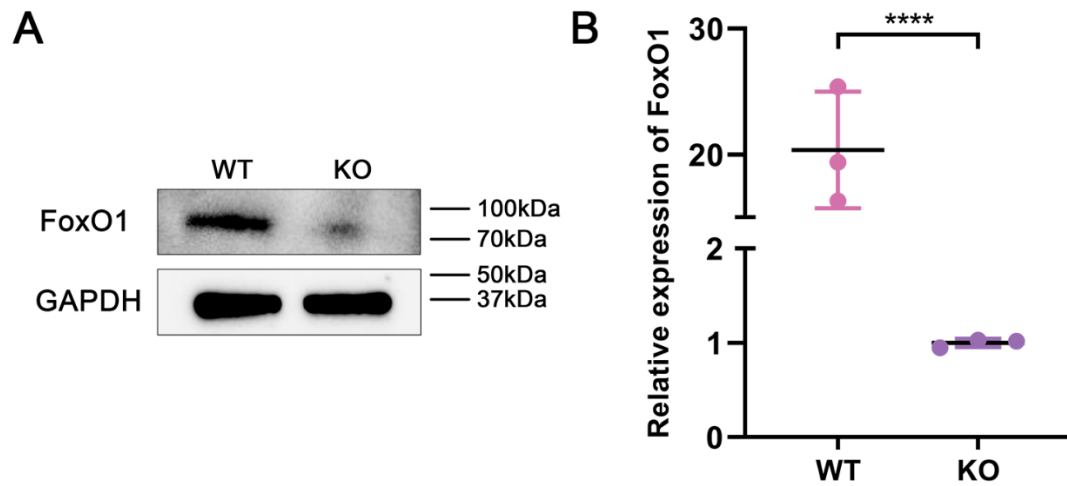


Figure S1. Evidence of FoxO1 deletion *in vivo*.

(A) Protein expression level of FoxO1 examined by Western blot. (B) The mRNA expression of FoxO1 tested using real time-qPCR. WT: wild type mice; KO: FoxO1^{OB^{-/-}} mice.