Supplementary Information

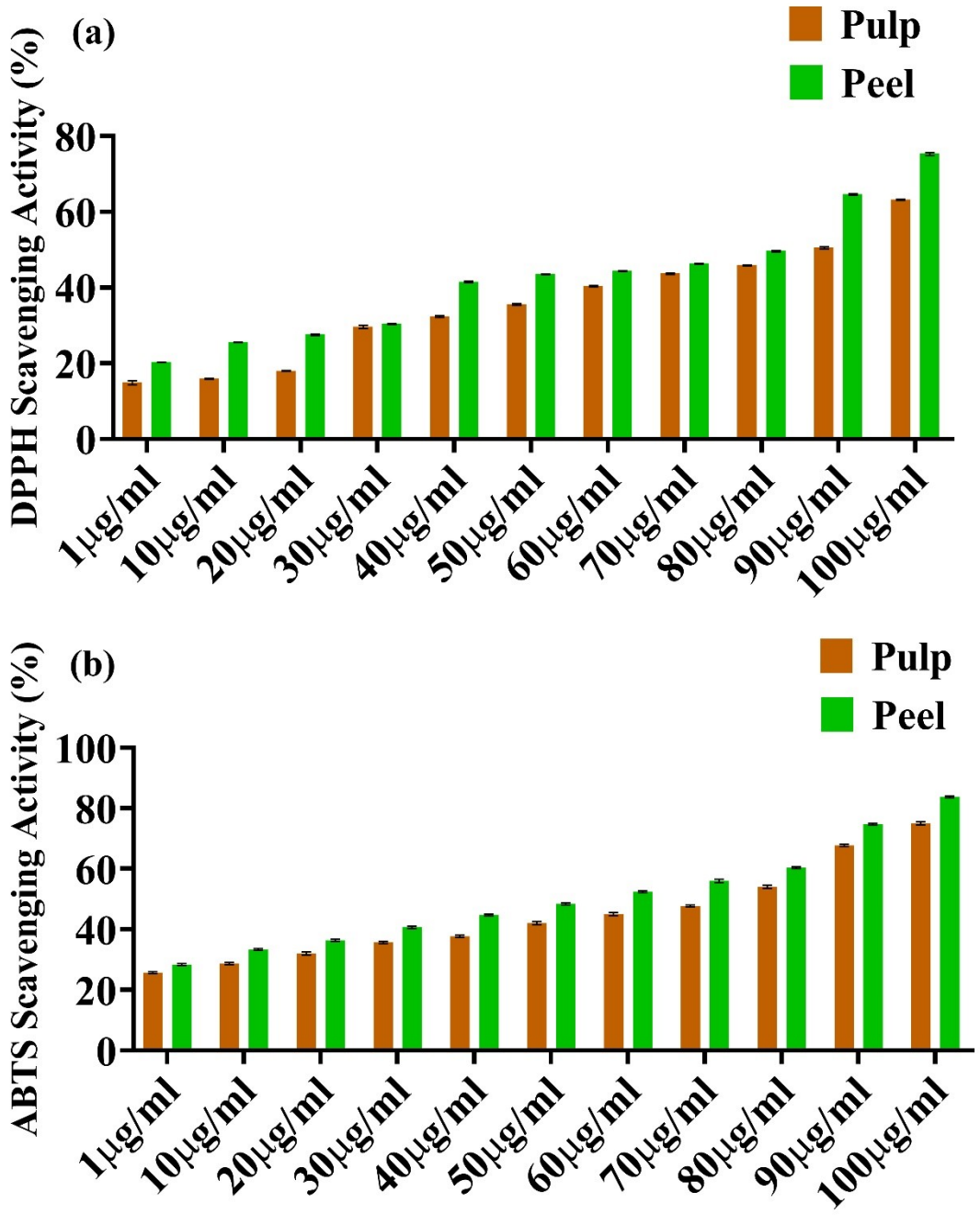

Figure S1: Comparative assessment of anti-ROS potential of banana pulp and peel was performed by using DPPH and ABTS assays. Graph in (a) shows DPPH Scavenging Activity in percentage for both pulp and peel. Graph (b) shows the ABTS Scavenging Activity of banana pulp and peel in percentage.

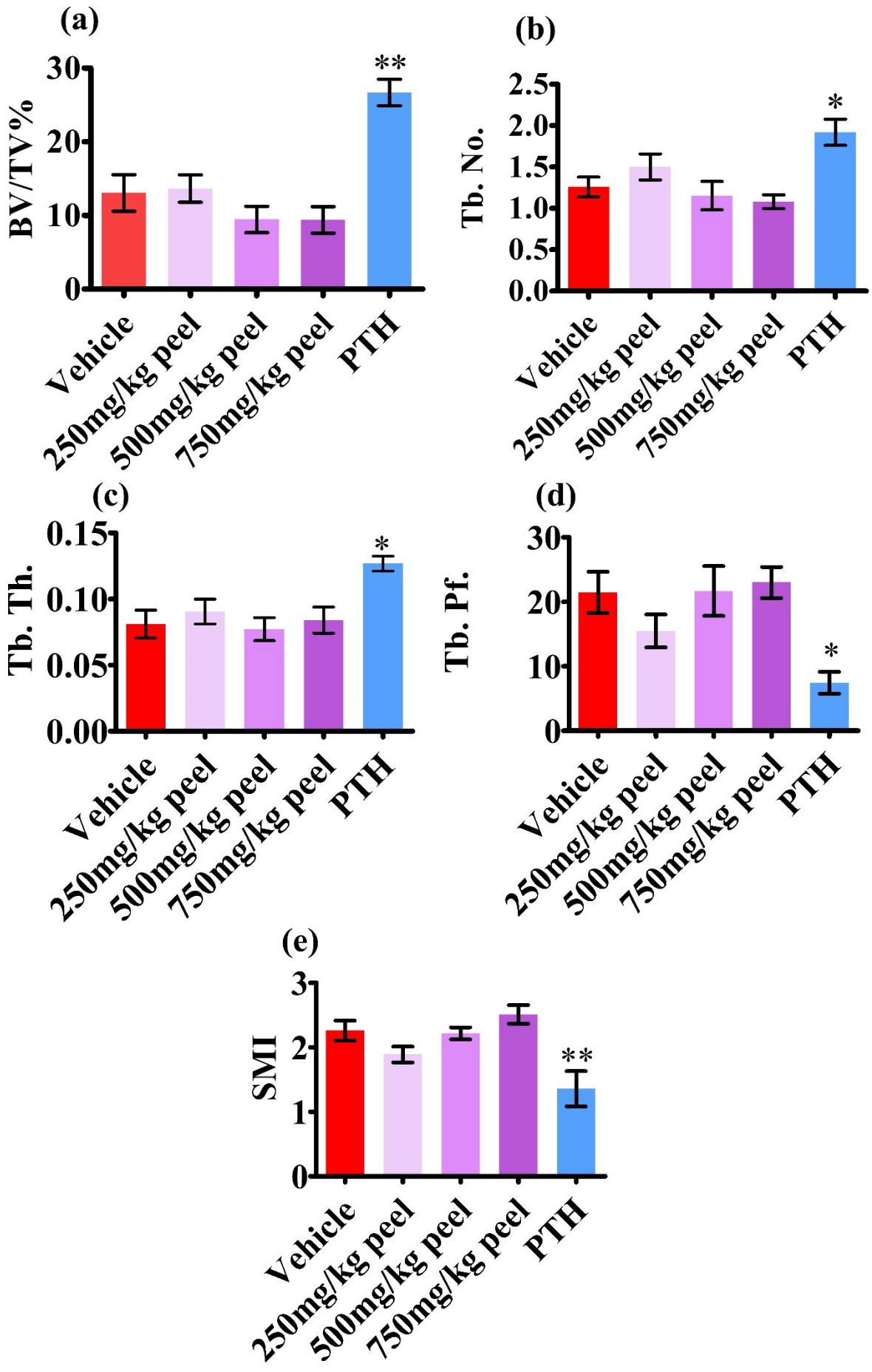
(a)
BV/TV%
30
20
10
0
**
Vehicle
250mg/kg peel
500mg/kg peel
750mg/kg peel
PTH
(b)
Tb. No.
2.5
2.0
1.5
1.0
0.5
0.0
*
Vehicle
250mg/kg peel
500mg/kg peel
750mg/kg peel
PTH
(c)
Tb. Th.
0.15
0.10
0.05
0.00
*
Vehicle
250mg/kg peel
500mg/kg peel
750mg/kg peel
PTH
(d)
Tb. Pf.
30
20
10
0
*
Vehicle
250mg/kg peel
500mg/kg peel
750mg/kg peel
PTH
(e)
SMI
3
2
1
0
**
Vehicle
250mg/kg peel
500mg/kg peel
750mg/kg peel
PTH

Figure S2: Bone trabecular microarchitecture was analysed in fracture mice model after oral administration of banana peel at the doses of 250mg/kg,500mg/kg and 750mg/kg for 2 weeks. Micro-CT parameters like Bone volume/Tissue volume (BV/TV%) (a), Trabecular Number (Tb. No.) (b), Trabecular Thickness (Tb.th.) (c), Trabecular pattern factor (d) and Structure Module Index (SMI) (e) were measured. Number of animals are 6-8 per group. The results are expressed as mean ± SEM calculated using a one-way ANOVA with Newman-Keuls post hoc multiple comparison test, *p <0.05, **p < 0.01, and ***p < 0.001

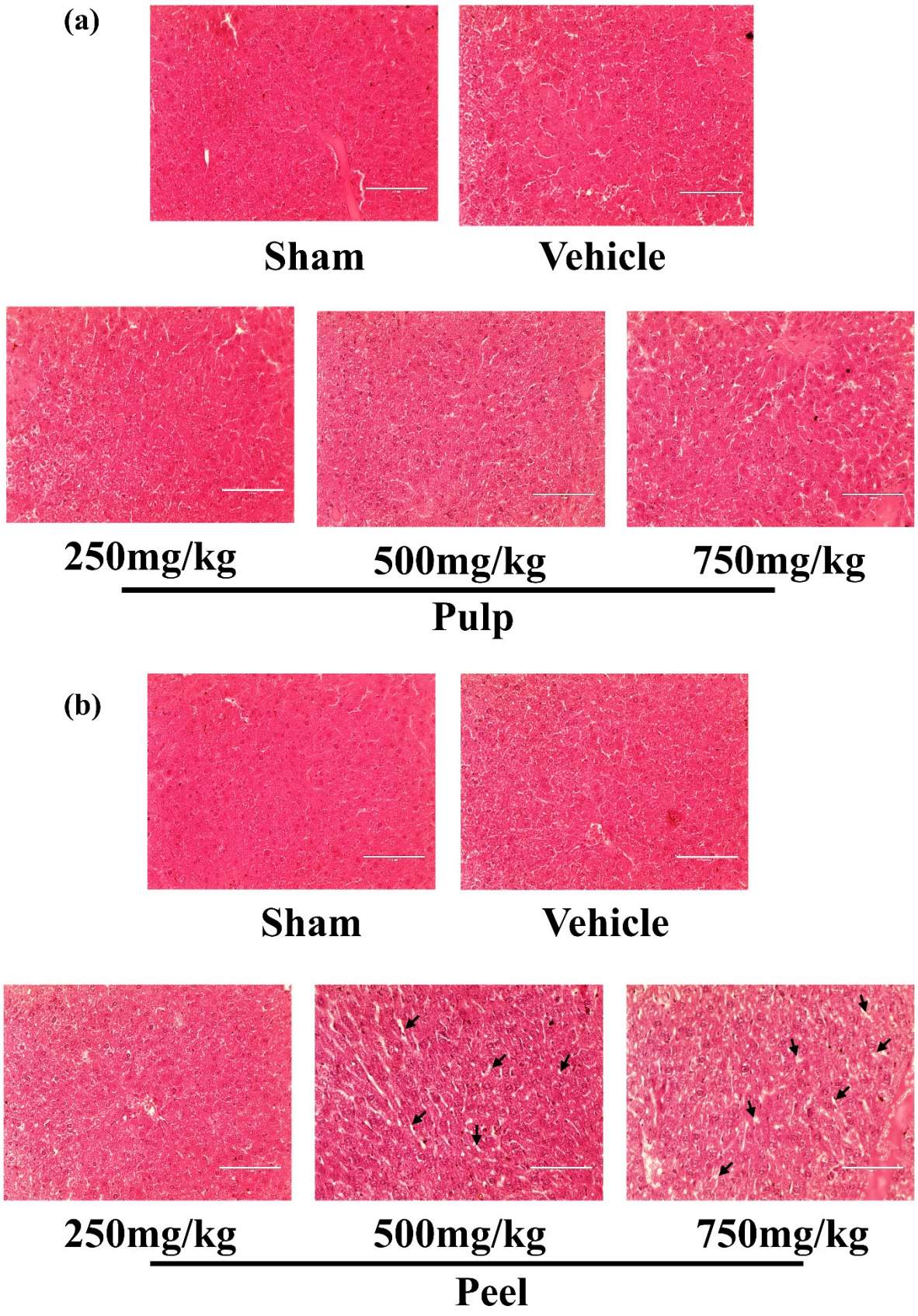

Figure S3: Liver histology (Haematoxylin & Eosin staining) of fractured mice after 2 weeks of oral dose administration. Representative images of different

groups are shown at 40x magnification.

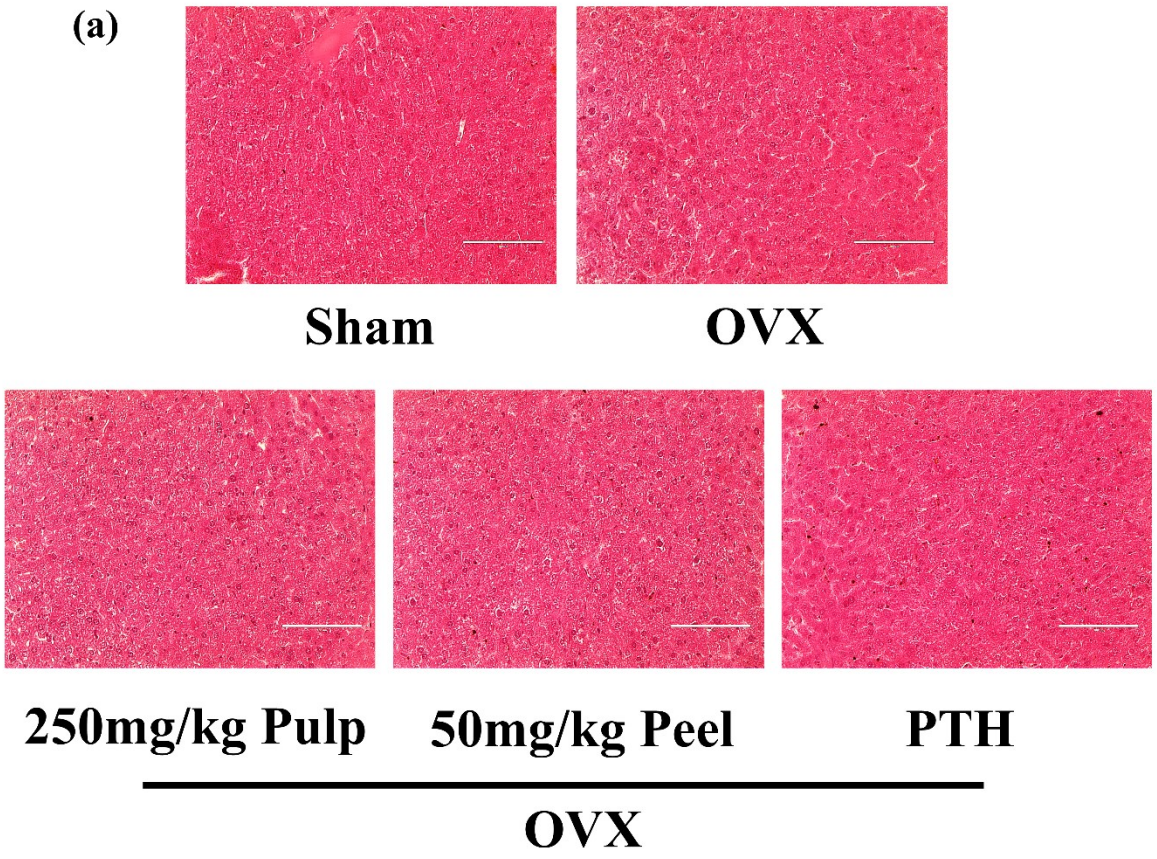

Figure S4: Liver histology (Haematoxylin & Eosin staining) performed after 8 weeks of dose administration in OVX mice. Representative images of different groups are shown at 40x magnification.