Epalrestat attenuates reactive oxygen species and endoplasmic reticulum stress by maintaining glycosylation in Schwann cells under galactosemic conditions

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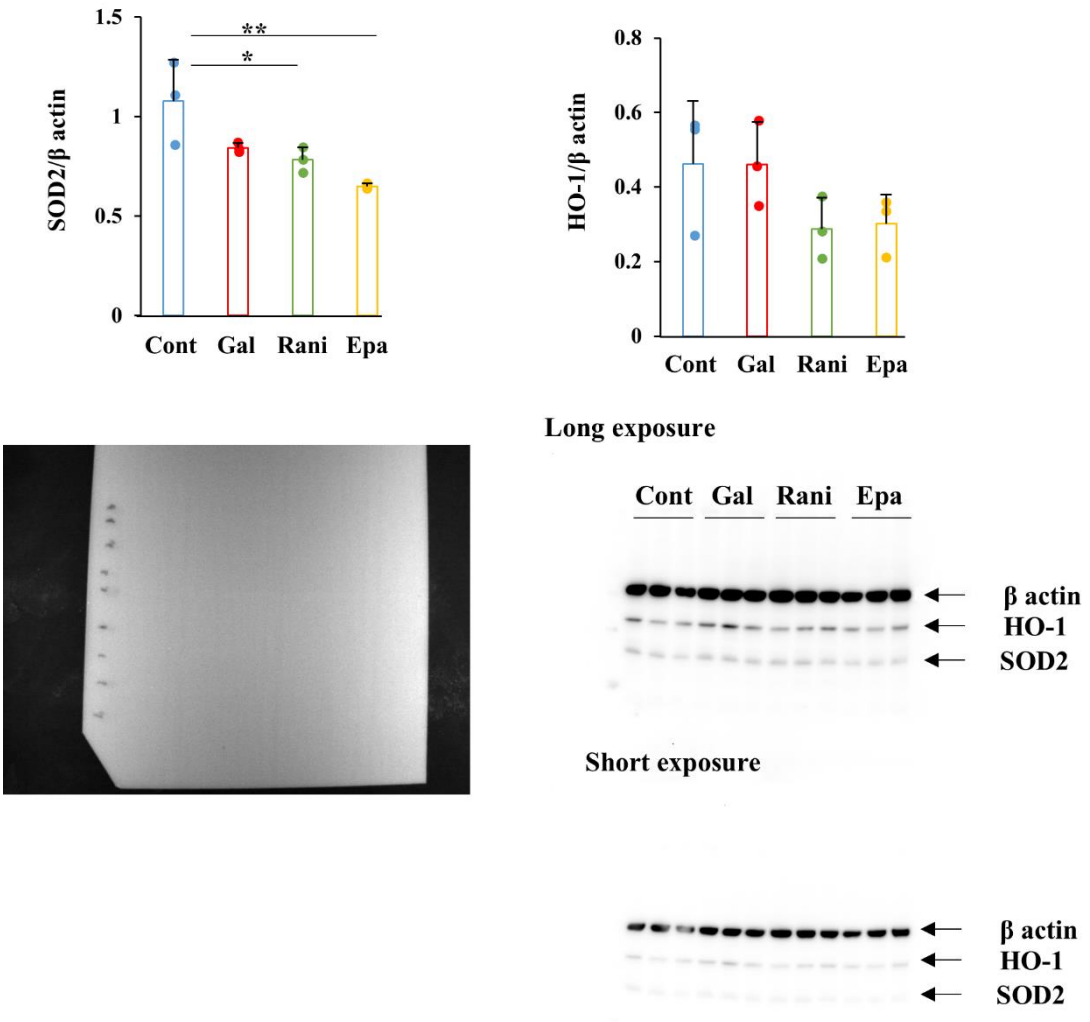


Figure S1. AR inhibitors did not change SOD2 and HO-1 expression.

The levels of SOD2 and HO-1 were determined using Western blotting. The bars show the levels of these proteins in IMS32 cells under control (Cont; **blue**), and high-galactose (Gal; **red**) conditions in the additive with 5 nM ranirestat (Rani; **green**) and epalrestat (Epa; **yellow**). Values represent mean + SD from three experiments (individual values are depicted as circles). * $P < 0.05$.

Full length of the membranes SOD2, HO-1, and β actin were visualized in the same membrane.

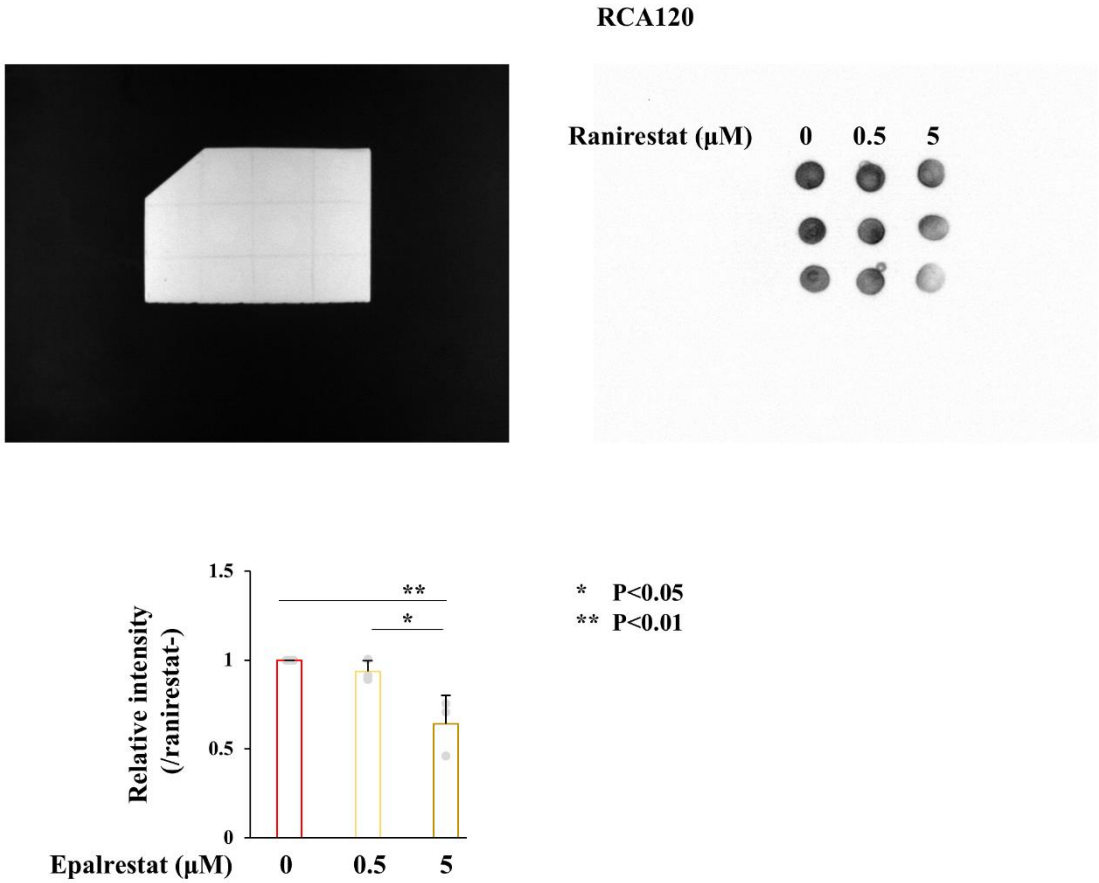


Figure S2. Epalrestat inhibited RCA120 expression in a dose-dependent manner.

The levels of RCA120 were determined using dot blot. The bars show the levels of RCA 120 in IMS32 cells under control high-galactose (**red**) conditions in the additive with 0.5 (**yellow**) and 5 μM epalrestat (**brown**). Values represent mean + SD from three experiments (individual values are depicted as circles). * P < 0.05 and **<0.01.

The actual membrane RCA120 were exhibited.

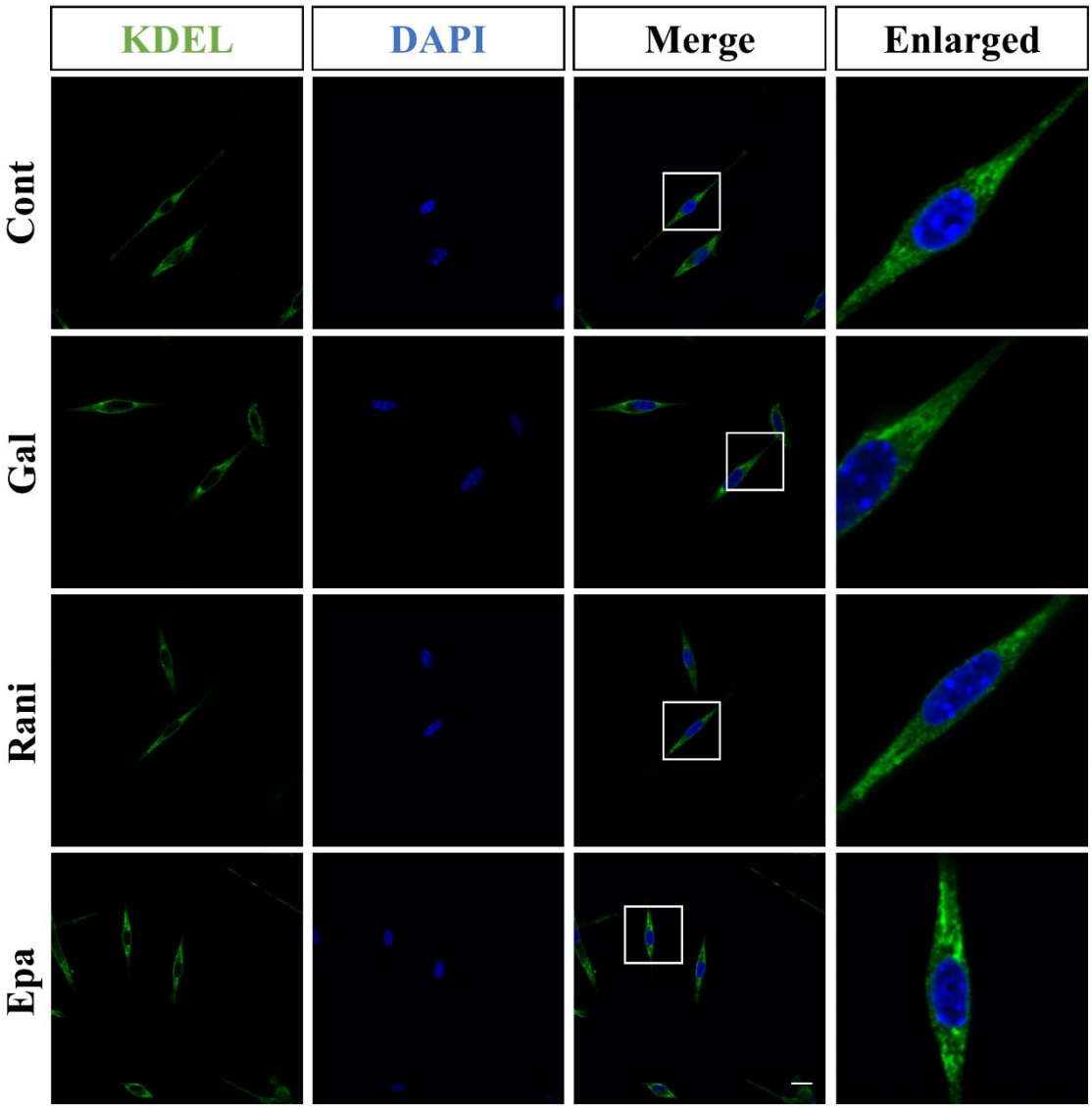


Figure S3. KDEL signals were not changed under high-galactose conditions.

Representative immunostaining images of the KDEL (**green**) and nuclear staining of DAPI (**blue**) in IMS32 cells under the following conditions are shown: control (Cont), high-galactose (Gal), high-galactose with 5 nM ranirestat (Rani), and high-galactose with 5 nM epalrestat (Epa). Enlarged images of the white-boxed regions in the merged images are also shown. Scale bar: 10 μm.

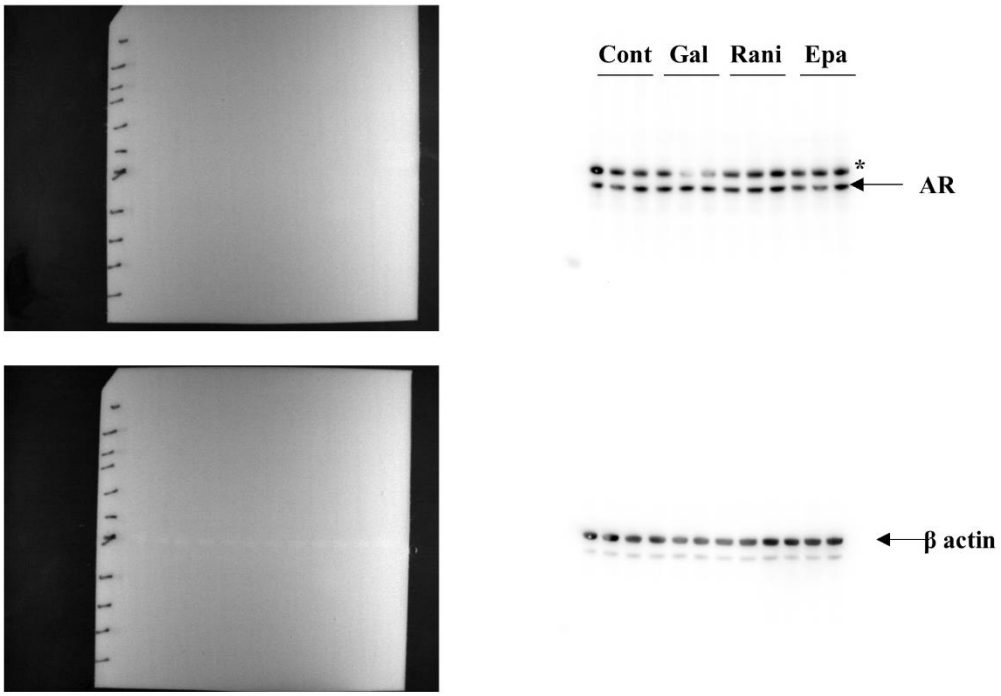


Figure S4. The actual Western blotting images of AR and β actin.

Full length of the membranes AR and β actin presented in **Fig. 2A** were sequentially visualized in the same membranes. * shows the bands of another antibody.

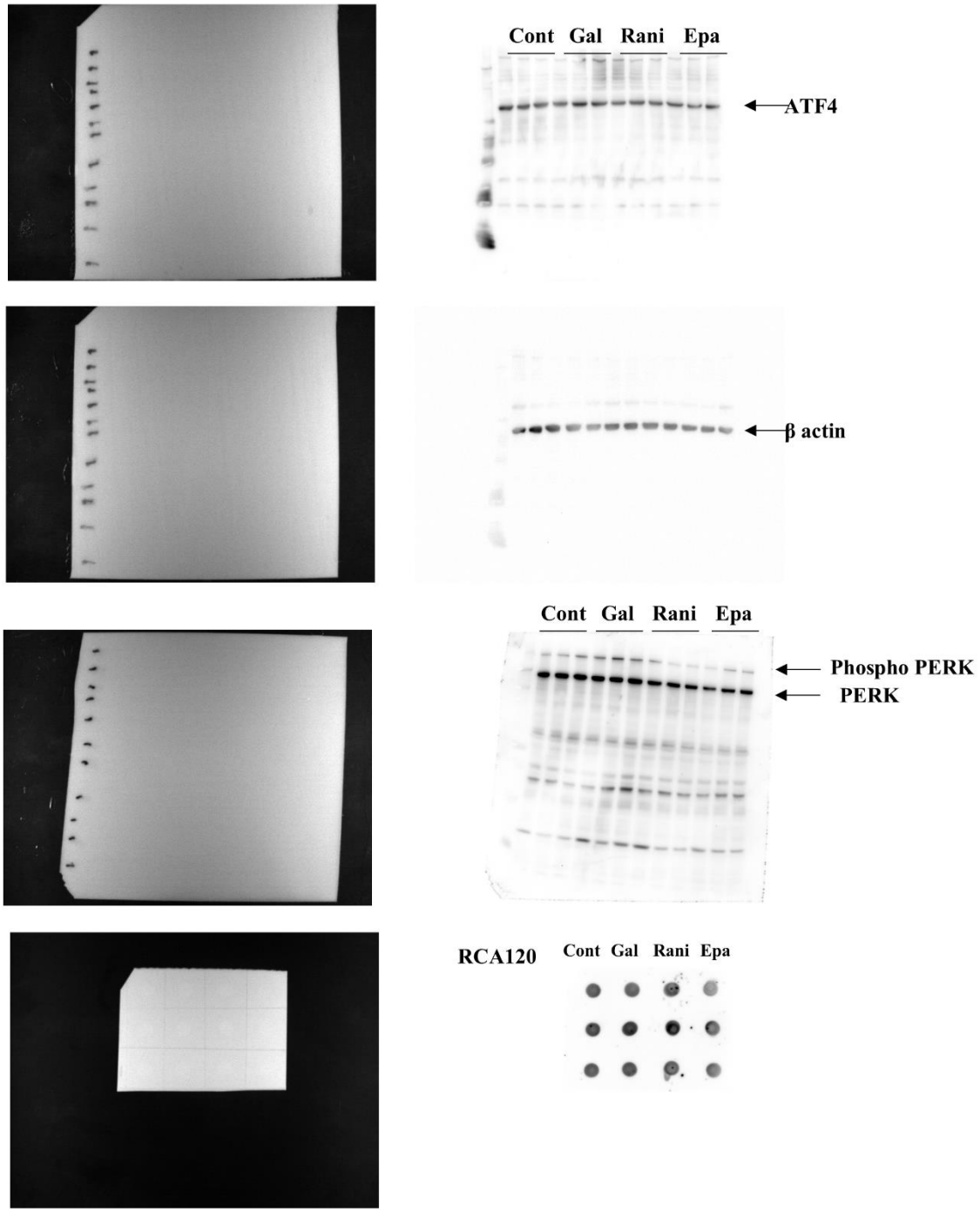


Figure S5. The actual Western blotting images of ATF4, β actin, Phospho PERK, PERK, and RCA120.

Full length of the membranes ATF4, β actin, Phospho PERK, PERK, and RCA120 presented in **Fig. 5** were sequentially visualized in the same membranes of ATF4 and β actin.