



S4 Fig. Sex-based analyses of molecular markers in healthy control (HC), colorectal adenoma (AD), and colorectal cancer (CRC) groups. (A) Expression of the nuclear factor erythroid 2–related factor 2 (*NRF2*) mRNA in colon tissues of males and female within HC, AD, and CRC groups. Glyceraldehyde 3-phosphate dehydrogenase (*GAPDH*) was used as an internal control. (B) Methylation levels of kelch-like ECH-associated protein 1 (*KEAP1*) in colon tissues of males and female within HC, AD, and CRC groups. Actin-beta (*ACTB*) was used as an internal control. (C) Immunohistochemical analysis of programmed death ligand 1 (*PD-L1*) in colon sections of males and female within HC, AD, and CRC groups. (D, E) Expression of the cyclooxygenase 2 (*COX-2*) (D) and interleukin-1 β (*IL-1 β*) (E) mRNA in colon tissues of males and female within HC, AD, and CRC groups. *GAPDH* was used as an internal control. Statistical significance was compared between two groups using the Mann-Whitney test.