Description of Additional Supplementary Files:

**Supplementary Data 1**: Clinical information of colon cancer patients.

**Supplementary Data 2**: CircRIG-I associated proteins by proximity-based labeling coupled mass cytometry.

**Supplementary Data 3**: DDX3X associated proteins in the presence or absence of circRIG-I.

**Supplementary Data 4**: The primers used for detection of potential off-targets.

**Supplementary Data 5**: The primers used for quantitative real-time PCR.