Electronic Supplementary Material (ESI) for Food & Function. This journal is © The Royal Society of Chemistry 2021



Supplementary Fig. 1. Identification of antioxidant genes targeted by miR483-3p.

miR483-3p 3' UUCUGCCCUCCUCCUCACU 5' II I IIIII NRF2-3'UTR wt 5'...GAAACTTTAAAAAGCATTGGAGTGT... 3' NRF2-3'UTR mut 5'...GAAACTTTAAAAAGCATTCCTCACT... 3' miR483-3p 3' UUCUGCCCUCCUCCUCACU 5'

SOD2-3'UTR site1 wt 5' ... CTGTGTCACCCAGG--CTGGAGTGC....3' SOD2-3'UTR site1 mut 5' ... CTGTGTCACCCAGG--CTCCTCACC....3'

miR483-3p 3' UUCUGCCCUCCUCUCCUCACU 5' | | ||||||| SOD2-3'UTR site2 wt 5' ...CCAACACTATGTTGAATAGGAGTGG ...3' SOD2-3'UTR site2 mut 5' ...CCAACACTATGTTGAATTCCTCACG ...3'



Supplementary Fig. 2. Luciferase activity assay of antioxidant genes targeted by miR483-3p.



Supplementary Fig. 3. Effect of EGCG on ROS levels in miR483-3p-overexpressed HCC cells.







Supplementary Fig. 5. Migration and invasion assays of HCC cells subjected to different treatments. scale bar = $100 \mu m$.



Supplementary Fig. 6. Effect of different concentrations of NAC on the expression of miR483-3p in HCC cells.



Supplementary Fig. 7. Non-cytotoxic dose of EGCG partly restores the miR483-3p induced downregulation of ERp29 in HCC cells.

qPCR primers

Forward SOD2: GGAAGCCATCAAACGTGACTT NRF2: TCAGCGACGGAAAGAGTATGA SOD1: GGTGGGCCAAAGGATGAAGAG SOD3: ATGCTGGCGCTACTGTGTTC HO-1: AAGACTGCGTTCCTGCTCAAC GAPDH: AATCCCATCATCTGCCA CAT : TGGAGCTGGTAACCCAGTAGG GPX1: CAGTCGGTGTATGCCTTCTCG NQO1: GAAGAGCACTGATCGTACTGGC miR483-3p: GCGAGCACTCACTCCTCTC Reverse CCCGTTCCTTATTGAAACCAAGC CCACTGGTTTCTGACTGGATGT CCACAAGCCAAACGACTTCC CTCCGCCGAGTCAGAGAGTTG AAAGCCCTACAGCAACTGTCG TGGACTCCACGACGTACTCA CCTTTGCCTTGGAGTATTTGGTA GAGGGACGCCACATTCTCG GGATACTGAAAGTTCGCAGGG TGGTGTCGTGGAGTCGGC

Stem loop primers for miR483-3p reverse transcription: GCGTCTCAACTGGTGTCGTGGAGTCGGCAATTCAGTTGAGACGCAAGACGGGA

sgRNA targeting miR483-3p promoter sgRNA-1:TCCAGCTGAGCATTGCTGTG sgRNA-2:CTTGGGGGGACCCCCGTGATG

Primers for BSP forward: TTTTTGAGAGGGGGGGGGGGGGGG

reverse: CACCACCCCTAAAACTACTAAAACA