

Supplementary Material

Supplementary Fig.1. Observed effects are not attributable to SHP2-mediated signaling or increased EGF expression

- a. RAS-GTPase activity in the A375 cells was unaffected by inhibition of SHP2 by PHPS1.
- b. EGF expression was unchanged by ARSB silencing or by treatment with rhARSB in the A375 cells.

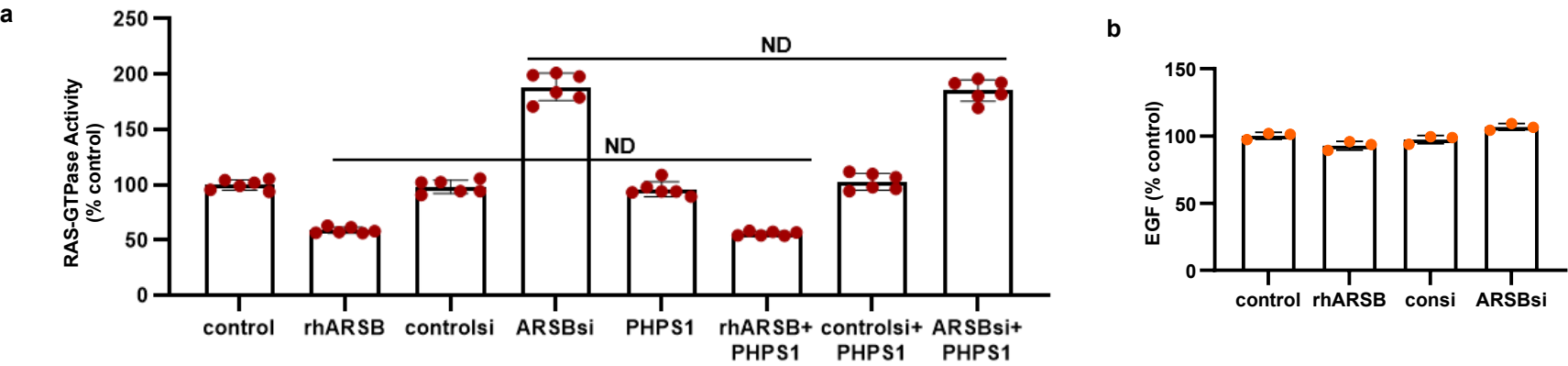
Supplementary Fig.2. Knockdown of ARSB, CHST15, and galectin-3 by siRNA is effective.

- a,b. ARSB activity declined by about 90% following treatment by ARSB siRNA1 or siRNA2 in A375 cells.
- c. ARSB activity declined following siRNA in the B16F10 cells.
- d. Expression of PAPSS1 and PAPSS2 is significantly reduced by specific siRNAs.

Supplementary Table 1. Data for galectin-3/JNK/c-Jun mediated pathway of EGFR expression in A375 cells.

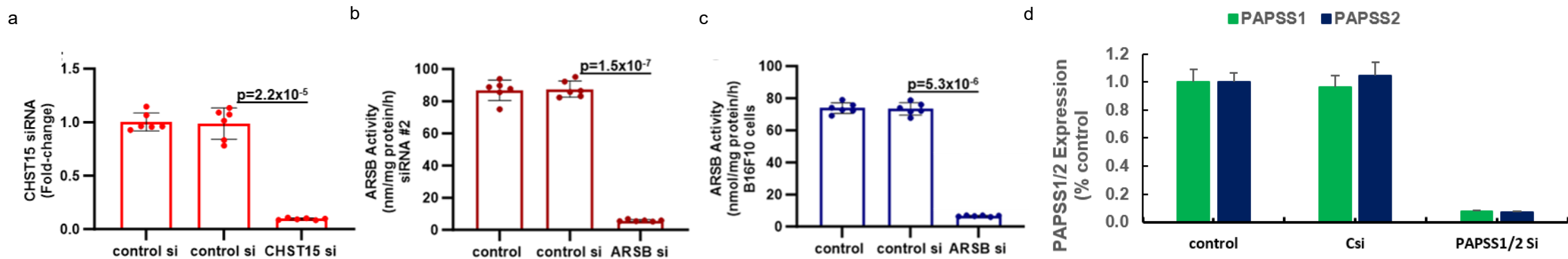
These data, now presented in tabular format, were previously published as Fig.3 in reference 13.

Supplementary Fig.1. SHP2 inhibition and EGF expression



- a. RAS-GTPase activity in the A375 cells was unaffected by inhibition of SHP2 by PHPS1.
- b. EGF expression was unchanged by ARSB silencing or by treatment with rhARSB in the A375 cells.

Supplementary Fig.2. Effectiveness of siRNA silencing



a,b. ARSB activity declined by about 90% following treatment by ARSB siRNA1 and by siRNA2 in A375 cells.

c. ARSB activity declined in the B16F10 cells following knockdown by ARSB siRNA.

d. Expression of PAPSS1 and PAPSS2 is significantly reduced by specific siRNAs.

Supplementary Table 1. A375 cells data for Galectin-3/JNK/c-Jun mediated pathway of EGFR expression.

Supplementary Table 1. Data in A375 cells for galectin-3/JNK/c-Jun mediated pathway of increased EGFR expression								
	Control	rhARSB	Control si	ARSB si	Control si + Galectin-3 si	ARSB si + Galectin-3 si	Control si + cJP	ARSB si + cJP
Galectin-3 (ng/mg protein)	12.3 (0.64)	7.28 (0.46)	12.58 (0.62)	21.50 (0.98)	1.03 (0.25)	1.07 (0.14)		
Phospho-JNK (% control)	100 (4.14)	59.60 (6.36)	94.41 (4.37)	203.90 (14.17)	104.23 (6.90)	96.43 (6.71)		
c-Jun (% control)	100 (6.93)	59.66 (3.35)	104.75 (11.69)	224.80 (22.96)	102.39 (12.72)	123.52 (5.43)	26.39 (5.66)	27.79 (1.63)
Values are mean ±(S.D.).								