Supporting Information

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Fig. S1. Knockdown of Srx impairs AP-1 activation. (A) Serum and EGF induce Srx expression in control cells but not in ShSrx cells. P+ cells stably expressing ShNT or ShSrx were serum-starved for 24 h and then treated as indicated for 6 h. Cell lysates were used for Western blotting. (B) Cells after serum starvation were treated with 10-ng/ml TPA for indicated time and Western blotting was performed.



Fig. S2. Srx is not required for NF_KB activation. (*A*) A representative luciferase reporter assay in cells stably expressing ShNT or ShSrx by transient transfection of NF_KB luciferase reporter construct with a renila luciferase construct. The RLU was determined as the ratio of firefly luciferase value versus renila luciferase value. The assays were performed in triplicates. Data are presented as $x \pm$ SD. *, P > 0.05 (*t* test). (*B*) Luciferase reporter assay as in (*A*), but using wild-type P+ cells, with or without co-expression of Srx. *, P > 0.05 (*t* test).



Fig. S3. Knockdown of Srx increases cell death under oxidative stress conditions. (A and B) Cells stably expressing vector, ShNT or ShSrx were growing until confluence and then treated with H_2O_2 for 24 h. Cell survival was measured by XTT assay. Data at each concentration are from six replicates and are presented as $\bar{x} \pm$ SD.



Fig. S4. Representative immunohistochemistry staining of Srx in other human tumors. Strong positive staining is found in adenocarcinoma from rectum (B) and lung (D), but not in normal adjacent rectum (A) and lung (C) tissues.

DNA C

Table S1. A summary of Srx immunohistochemistry staining in human skin diseases on tissue microarray.

Number tissue	Total	Desitive				
		Negative	Positive			
			+ (%)	+ + (%)	+ + + (%)	Positive/Total (%)
Chronic inflammation	39	36	3 (7.7)	0	0	3/39 (7.7)
Hyperplasia	12	12	0	0	0	0/12
Dermatofibro- sarcoma	9	9	0	0	0	0/9
Condyloma	20	20	0	0	0	0/20
Papilloma	6	4	2	0	0	2/6
Squamous cell carcinoma	59	7	36 (61)	16 (27)	0	52/59 (88.1)
Sweat gland carcinoma	11	2	5 (45.5)	3 (27.3)	1 (9.1)	9/11 (81.8)
Basal cell carcinoma	43	11	16 (37.2)	4 (9.3)	12 (27.9)	32/43 (74.4)
Melanoma	46	16	8 (17.4)	6 (13)	16 (34.8)	30/46 (65.2)

Srx immunohistochemistry stain grading

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