

Supplementary Table 1. Oligonucleotides used in the construction of *SLC40A1* promoter reporter plasmids and DNA-protein binding assay

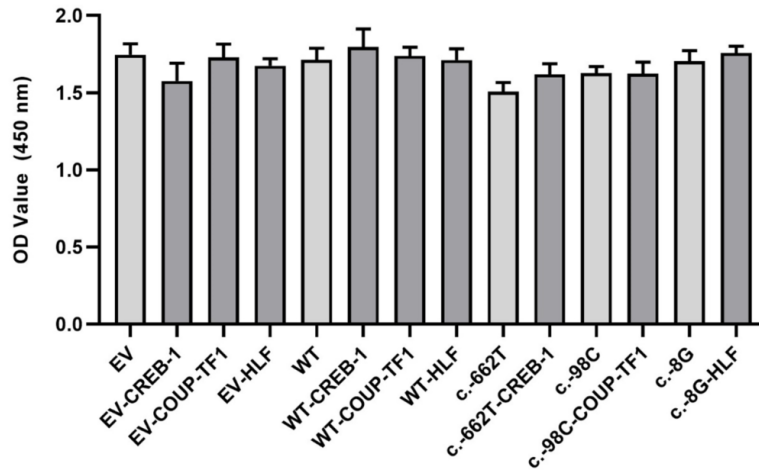
Primers for <i>SLC40A1</i> promoter cloning (1,554 bp) ^a	
Sense (<i>KpnI</i> site)	5'-CGGG GTACCC CGCCACTACCAGGGTTTTCGTGA-3'
Antisense (<i>HindIII</i> site)	5'-CCCA AGCTT GGGTGGGTTCCACCATATGCTTTC-3'
Primers for <i>SLC40A1</i> mutagenesis PCR ^b	
c.-1355G>C	5'-CGAAGTCAACCAAGGCTACAGTCTGGTGTCTTTA-3'
c.-750G>A	5'-CCGCCCTTCCCT AAACT GCGGGGTAG-3'
c.-662C>T	5'-CCCCGCCGGCTTCACGCGCCTTC-3'
c.-98G>C	5'-GTTGTGTTTTTAGAGGT CCTATCTCCAGTTCCTTG -3'
c.-8C>G	5'-AGCGGGGTCGC G TAGTGTCATGAC-3'
Oligonucleotides for DNA-protein binding assay	
Consensus CREB-1 ^b	5'-AGAGATTGC CTGACGTC AGAGAGCTAG-3'
Wild type (c.-662C) ^c	5'-CCCCGCCGGCT CCACGCGCCTTC -3'
Variant (c.-662T) ^c	5'-CCCCGCCGGCT TCACGCGCCTTC -3'
Consensus COUP-TF1 ^b	5'-AGCTTGGTGTCAA AGGTCAA CTTAGCT-3'
Wild type (c.-98G) ^c	5'-TGTGTTTTTAGAGGT GCTATCTCCAGTTC -3'
Variant (c.-98C) ^c	5'-TGTGTTTTTAGAGGT CCTATCTCCAGTTC -3'
Consensus HLF ^b	5'-CAGGG TTACG TAATCTGCT-3'
Wild type (c.-8C) ^c	5'-AGCCAGCGGGGTCGC CTAGTGTCATGACCAG -3'
Variant (c.-8G) ^c	5'-AGCCAGCGGGGTCGC G TAGTGTCATGACCAG-3'

SLC40A1, solute carrier 40A1; WT, wild type; CREB-1, cAMP response element-binding protein-1; COUP-TF1, chicken ovalbumin upstream promoter transcription factor 1; HLF, hepatic leukemia factor. ^aRestriction endonuclease sites are indicated in bold letters and underlined. ^bConsensus sequences of transcription factors are indicated in bold-faced letters and underlined. ^cSingle nucleotide polymorphism sites are indicated in bold letters.

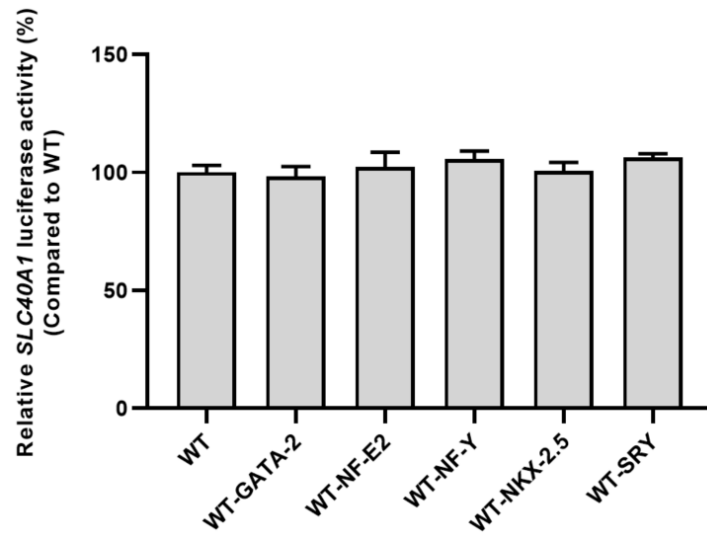
Supplementary Table 2. Frequencies of *SLC40A1* major haplotypes in African

c.-1470 C>T	c.-1461 T>C	c.-1355 G>C	c.-1098 G>A	c.-750 G>A	c.-662 C>T	c.-98 G>C	c.-8 C>G	Frequency
C	T	C	G	G	T	G	C	0.272
C	T	C	G	G	C	G	C	0.099
C	T	G	A	A	C	G	C	0.094
C	T	G	G	G	C	G	C	0.091
C	T	C	A	G	C	G	C	0.081
C	T	G	G	G	T	G	C	0.064
C	T	C	G	A	T	G	C	0.061
T	C	G	G	G	C	G	C	0.055

Single nucleotide polymorphisms are indicated in bold letters.



Supplementary Fig. 1. The effect of transcription factor overexpression on cell viability. A cell viability assay was performed after co-transfection of reporter plasmids containing *SLC40A1* WT or variants and transcription factors—CREB-1 (500 ng), COUP-TF1 (100 ng), and HLF (200 ng)—into HCT-116 cells. Then, we compared cell viability when transcription factors were overexpressed and when they were not. Data shown represents mean \pm SD from triplicate wells in a representative experiment. *SLC40A1*, solute carrier 40A1; WT, wild type; CREB-1, cAMP response element-binding protein-1; COUP-TF1, chicken ovalbumin upstream promoter transcription factor 1; HLF, hepatic leukemia factor; OD, optical density.



Supplementary Fig. 2. The effect of other transcription factors on the *SLC40A1* promoter activity. A luciferase assay was conducted after co-transfection of 500 ng of *SLC40A1* WT reporter plasmid and 100 ng of five transcription factors—GATA-2, NF-E2, NF-Y, NKX-2.5, and SRY—that were predicted not to bind to the *SLC40A1* promoter. Data shown represents mean \pm SD from triplicate wells in a representative experiment. *SLC40A1*, solute carrier 40A1; WT, wild type; GATA-2, GATA binding protein 2; NF-E2, nuclear factor erythroid 2; NF-Y, nuclear transcription factor Y; NKX-2.5, NK2 transcription factor related, locus 5; SRY, sex-determining region Y gene.