

Table S1. Hematological data, reticulocyte count, reticulocyte production index and reticulocyte's mRNA levels of catalase, glutathione peroxidase 1, peroxiredoxin 2, superoxide dismutase 1 and glyceraldehyde-3-phosphate dehydrogenase for control, hereditary spherocytosis, sickle cell disease and β -thalassemia groups.

	Control (n = 21)	HS (n = 13)	SCD (n = 4)	β -thal (n = 14)
RBC ($\times 10^{12}/L$)	4.83 [4.52-5.16]	4.00 [3.40-4.50]*	2.60 [2.22-3.28]* ^a	5.27 [5.02-6.08]* ^{ab}
Hb (g/L)	146 [136-152]	123 [108-131]*	82 [76-91]* ^a	113 [103-128]* ^b
MCV (fL)	88.4 [86.2-91.2]	84.3 [81.2-91.8]	85.5 [79.2-105.7]	62.6 [60.2-70.9]* ^{ab}
MCH (pg)	30.2 [28.9-31.0]	29.5 [28.7-32.6]	30.1 [26.6-38.3]	20.0 [19.3-22.4]* ^{ab}
RDW (%)	12.7 [12.4-13.3]	18.1 [14.2-19.9]*	19.4 [18.4-20.8]*	16.1 [15.3-17.2]* ^b
RET ($\times 10^9/L$)	60 [52-75]	214 [87-244]*	140 [138-186]*	84 [52-112] ^{ab}
RET (%)	1.24 [1.04-1.48]	5.65 [2.52-6.82]*	4.80 [4.71-6.00]*	1.56 [1.00-1.90] ^{ab}
RPI	1.12 [0.80-1.49]	2.41 [1.84-3.06]*	1.84 [1.34-3.41]*	0.74 [0.50-0.84]* ^{ab}
CAT mRNA (cDNA copy number $\times 10^6$)	5.0 [3.5-12.0]	177.0 [88.5-464.0]*	604.5 [249.0-1810.8]*	12.5 [4.00-26.5] ^{ab}
GPX1 mRNA (cDNA copy number $\times 10^6$)	0.0 [0.0-0.20]	2.50 [0.35-4.40]*	6.20 [3.88-12.72]*	0.70 [0.18-1.00]* ^b
PRDX2 mRNA (cDNA copy number $\times 10^6$)	21.0 [11.5-73.0]	1090.0 [258.0-1495.0]*	2000.0 [602.8-3673.0]*	20.0 [3.0-43.0] ^{ab}
SOD1 mRNA (cDNA copy number $\times 10^6$)	0.60 [0.25-1.30]	5.90 [3.65-15.35]*	17.60 [14.72-24.38]*	2.50 [1.12-5.20]* ^{ab}
GAPDH mRNA (cDNA copy number $\times 10^6$)	0.12 [0.08-0.35]	0.80 [0.33-1.44]*	1.79 [0.58-3.06]*	0.26 [0.07-1.06]

Data are presented as median (interquartile range). Mann-Whitney U test was used to compare differences between groups; $p < 0.05$ was considered statistically significant. * $p < 0.05$ vs. control group; ^a $p < 0.05$ vs. HS patients; ^b $p < 0.05$ vs. SCD patients. β -thal, β -thalassemia; CAT, catalase; GAPDH, glyceraldehyde 3-phosphate dehydrogenase; GPX1, glutathione peroxidase; Hb, hemoglobin; HS, hereditary spherocytosis; MCH, mean corpuscular hemoglobin; MCV, mean cell volume; PRDX2, peroxiredoxin 2; RBC, red blood cells; RDW, red cell distribution width; RET, reticulocytes; RPI, reticulocyte production index; SCD, sickle cell disease; SOD1, superoxide dismutase