



Supplementary Figure 1. Dose response curves for Hydroxyurea and BAY73-6691. (A) Leukocyte rolling, (B) adhesion and (C) extravasation in TNF- α -treated C57BL6 WT mice after administration of vehicle or hydroxyurea. n=29-55 venules per group. (D) Leukocyte rolling, (E) adhesion and (F) extravasation in TNF- α -treated C57BL6 WT mice after administration of vehicle or BAY73-6691. n=30-54 venules per group. * p<0.05, ** p<0.01, *** p<0.001, compared to vehicle alone.

Supplementary tables

Table 1: Hemodynamic parameters of WT mice

Treatments	Mice, n	Weight, g	Venules, n	Venular diameter, μm	RBC velocity, mm/s	WBC count ($10^3/\mu\text{L}$)
vehicle	13	24.7 \pm 0.6	105	26.1 \pm 1.0	1.8 \pm 0.1	2.3 \pm 0.3 Δ
HU	5	25.4 \pm 1.2	49	26.8 \pm 1.6	2.1 \pm 0.4	2.3 \pm 0.2
HU (gavage)	5	27.8 \pm 0.3	43	22.0 \pm 0.4	1.8 \pm 0.1	2.1 \pm 0.3
BAY73	4	26.5 \pm 0.7	40	30.2 \pm 0.5	2.0 \pm 0.1	1.8 \pm 0.6
HU + BAY73	6	25.6 \pm 0.7	44	25.2 \pm 1.0	1.5 \pm 0.1	2.4 \pm 0.2

WBC – white blood cells

Data are presented as mean \pm SEM

Δ n=10

Table 2: Hemodynamic parameters of SCD mice (chimeric)

Treatments	Mice, n	Weight, g	Venules, n	Venular diameter, μm	RBC velocity, mm/s	WBC count ($10^3/\mu\text{L}$)
vehicle	15	27.5 \pm 0.5	160	21.4 \pm 0.4	1.7 \pm 0.1	5.4 \pm 0.8
HU	5	25.5 \pm 1.1	80	22.2 \pm 0.5	2.7 \pm 0.2	7.4 \pm 1.7
HU (gavage)	3	27.1 \pm 0.3	24	22.6 \pm 0.2	2.3 \pm 0.6	6.2 \pm 0.8
BAY73	5	26.3 \pm 0.6	66	22.4 \pm 0.5	2.4 \pm 0.1	9.4 \pm 1.4
HU + BAY73	11	27.8 \pm 0.4	90	20.9 \pm 0.3	1.8 \pm 0.2	17.4 \pm 2.7***

WBC – white blood cells

Data are presented as mean \pm SEM

***, p<0.001, compared to vehicle

Table 3: Hemodynamic parameters of native SCD mice

Treatments	Mice, n	Weight, g	Venules, n	Venular diameter, μm	RBC velocity, mm/s	WBC count ($10^3/\mu\text{L}$)
vehicle	3	23.3 \pm 1.5	30	20.2 \pm 0.2	0.9 \pm 0.06	4.0 \pm 0.6
HU + BAY73	3	23.3 \pm 0.9	26	18.2 \pm 1.4	1.5 \pm 0.3	4.5 \pm 1.0

WBC – white blood cells

* Data are presented as mean \pm SEM