

## **Legend to Supplemental Data**

### **Supplemental Figure 1**

**DBP attenuates responses to vitamin D metabolites at various stages of monocyte maturation.** Human monocytes cultured in RPMI supplemented with 10% FBS and 10 U/ml GM-CSF for 1, 7 and 10 days were treated with 25OHD<sub>3</sub> (200 nM) or vehicle (0.2% ethanol) for 6 hrs with: 1) DBP (2 μM DBP + 8 μM BSA); or 2) no DBP (10 μM BSA). Expression of CYP24 mRNA was then analyzed by RT-PCR. Data are shown as mean changes in mRNA levels (RT-PCR  $\Delta\Delta$ Ct values) relative to vehicle-treated cells. \*\*\* = statistically different from DBP-treated cells, P < 0.001.

### **Supplemental Figure 2**

**DBP attenuates responses to vitamin D metabolites in unstimulated and IL-15 stimulated monocytes.** Human monocytes were cultured in RPMI supplemented with 10% FBS and 10U/ml GM-CSF in the presence or absence of interleukin-15 (IL-15) (300ng/ml) for 2 days. The resulting cells were then treated with 25OHD<sub>3</sub> (200 nM) or vehicle (0.2% ethanol) for 6 hrs under the following conditions: 1) DBP (2 μM DBP + 8 μM BSA); or 2) no DBP (10 μM BSA). Expression of CYP24 mRNA was then analyzed by RT-PCR. Data are shown as mean changes in mRNA levels (RT-PCR  $\Delta\Delta$ Ct values) relative to vehicle-treated cells. \*\*\* = statistically different from DBP-treated cells, P < 0.001.

### **Supplemental Table 1**

**Vitamin D status of human serum samples used in study.** Black (n=10) and white (n=10), sex (male) and age-matched (30-39 years) serum was purchased from a commercial vendor (Innovative Research, Novi, Michigan). DBP phenotype (Gc type) was determined by isoelectric focusing and ligand concentration measured by radioimmuno assay. Vitamin D insufficiency was defined as serum 25OHD<sub>3</sub> concentrations below 30 ng/ml (75 nM). There were no statistically significant variation in either 25OHD<sub>3</sub> or 1,25(OH)<sub>2</sub>D<sub>3</sub> serum levels between the different DBP/Gc genotypes.

Fig 1.

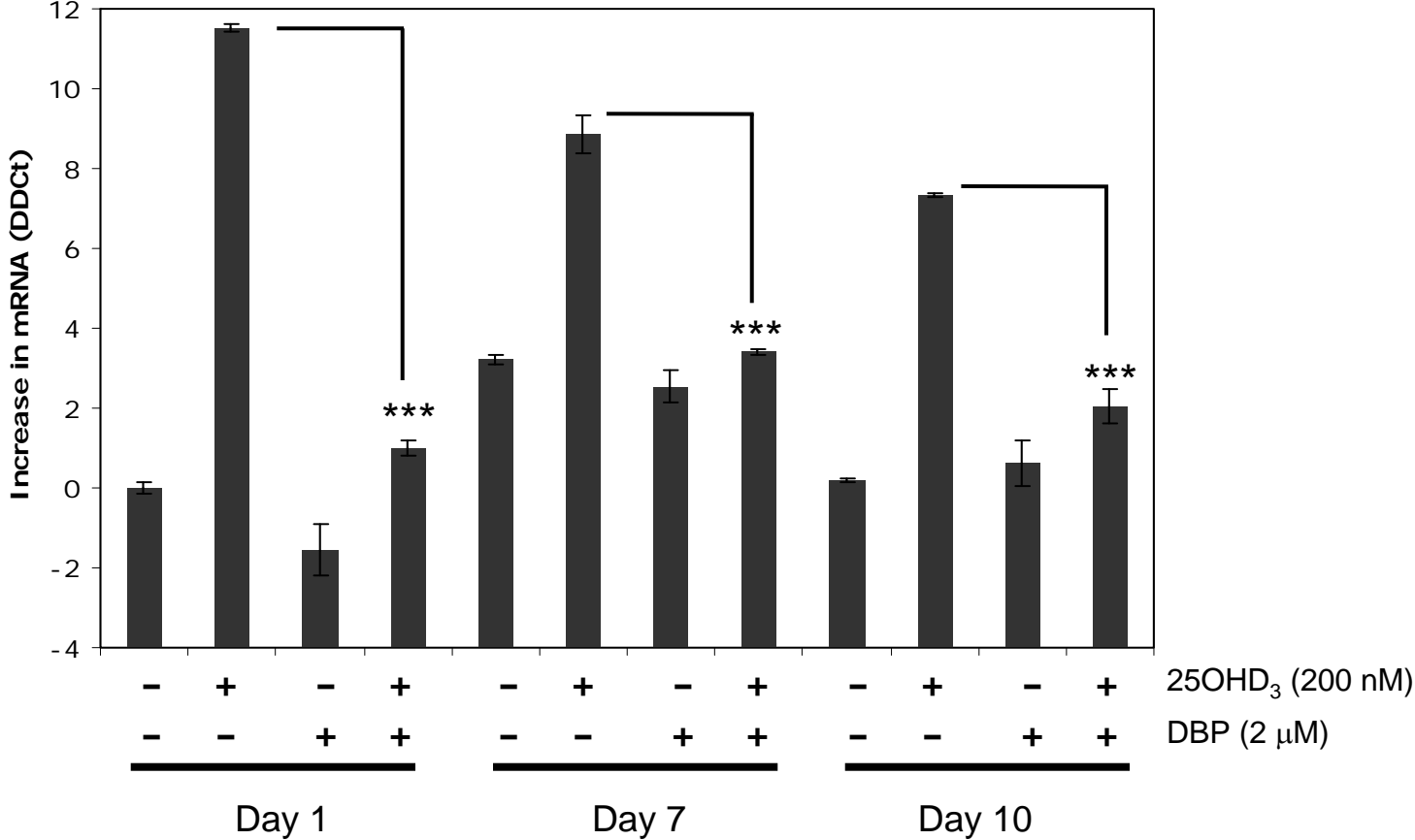


Fig. 2

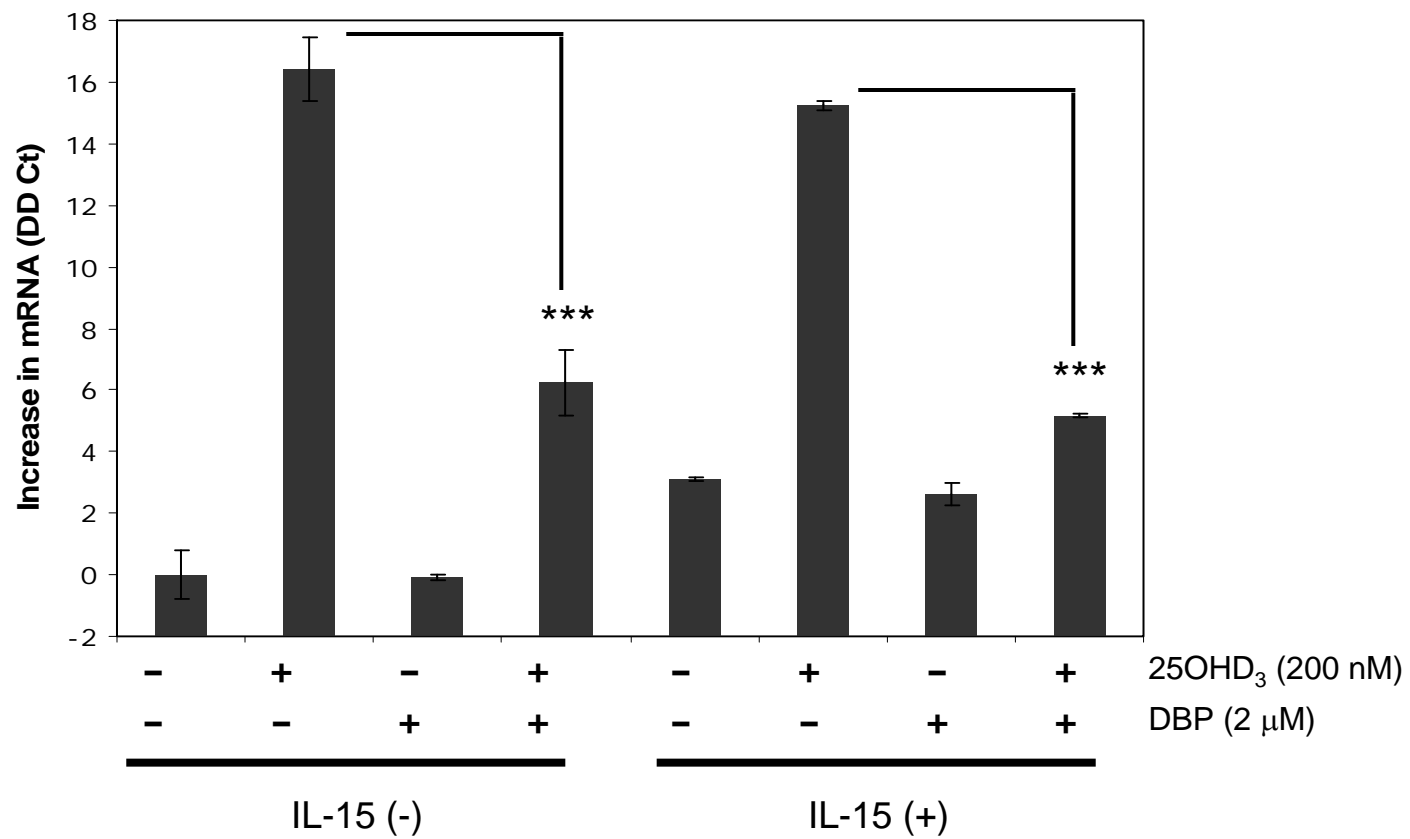


Table 1.

serum #	ethnic	genotype	25D (nM)	1,25D (nM)	25D status
1	black	Gc 1F-1F	52.4	0.161	insufficient
2	black	Gc 1F-1F	114.8	0.144	sufficient
3	black	Gc 1S-1F	40.2	0.095	insufficient
4	black	Gc 1F-1F	89.1	0.198	sufficient
5	black	Gc 1S-1S	43.2	0.143	insufficient
6	white	Gc 2-1S	46.2	0.133	insufficient
7	white	Gc 2-1S	69.4	0.088	insufficient
8	white	Gc 1S-1S	56.7	0.146	insufficient
9	white	Gc 1S-1S	79.4	0.113	sufficient
10	white	Gc 2-1S	50.4	0.124	insufficient
11	black	Gc 1S-1F	71.1	0.125	insufficient
12	black	Gc 2-1S	48.2	0.077	insufficient
13	black	Gc 1S-1F	67.9	0.135	insufficient
14	black	Gc 1F-1F	45.9	0.061	insufficient
15	black	Gc 1S-1F	39.9	0.101	insufficient
16	white	Gc 2-1F	59.4	0.103	insufficient
17	white	Gc 2-1F	63.6	0.112	insufficient
18	white	Gc 1S-1F	90.9	0.115	sufficient
19	white	Gc 1S-1S	80.9	0.131	sufficient
20	white	Gc 2-1F	62.4	0.125	insufficient