Figure S1. Fewer circulating lin-MDSCs and monocytic MDSCs were seen in patients with gBRCAm HGSOC independent of platinum-sensitivity and prior exposure to bevacizumab but this difference was not observed in other immune cells. The percentage of lin- and monocytic MDSCs was lower in patients with gBRCAm compared with patients with BRCAwt, independent of (A and B) platinum-sensitivity or (C and D) prior exposure to bevacizumab. There was no difference in the percentage of $CD8^+$ T cells between patients with gBRCAm and patients with BRCAwt, (E and F) regardless of platinum sensitivity or (G and H) prior exposure to bevacizumab.

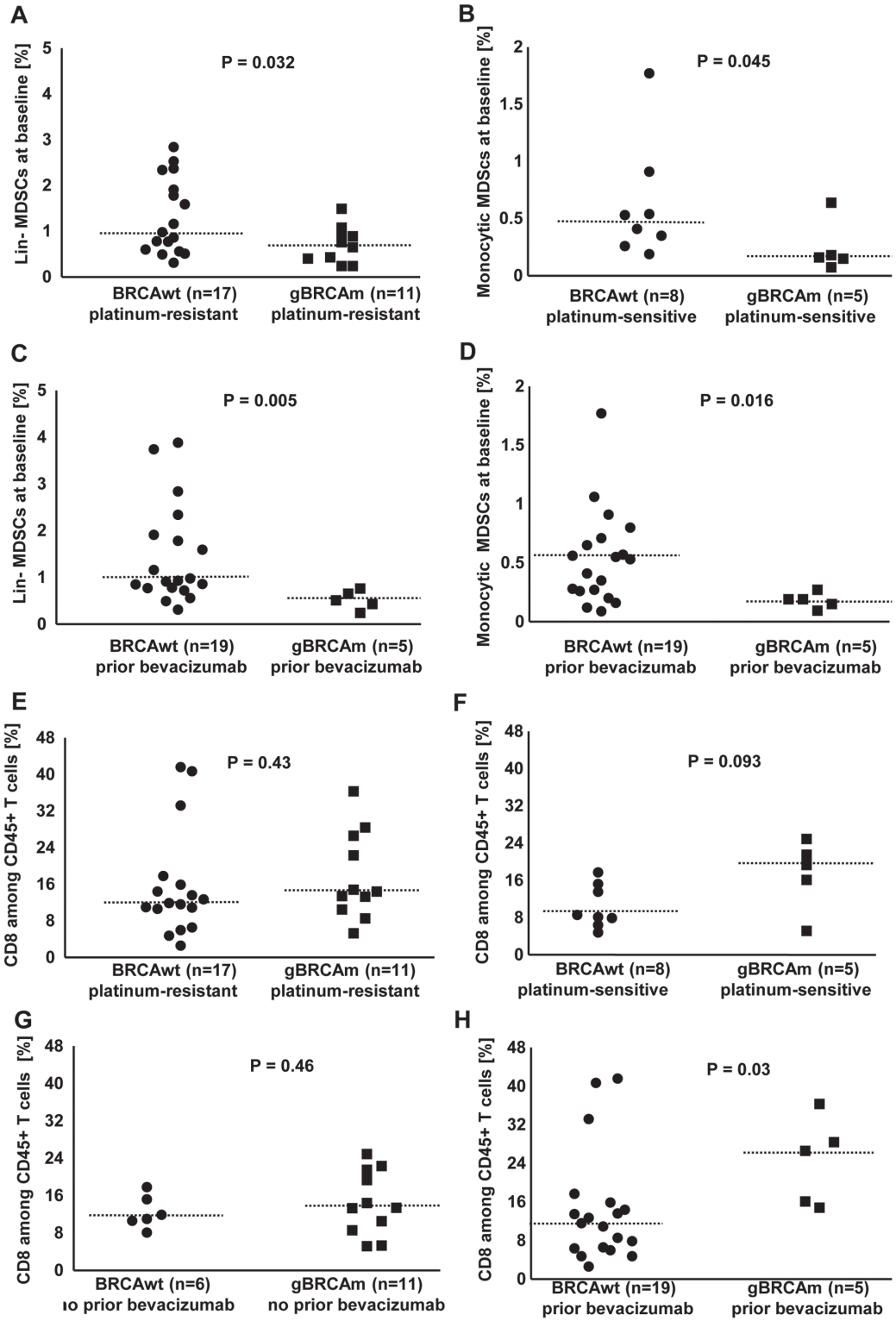

Figure S1. Continued. There was no difference in the CTLA-4 expression among CD8+ T cells between patients with gBRCAm and patients with BRCAwt, (I and J) regardless of platinum sensitivity or (K and L) prior exposure to bevacizumab. The dotted lines represent the median values. MDSCs, myeloid-derived suppressor cells; gBRCAm, germline BRCA mutation; BRCAwt, germline BRCA wild-type; MFI, Median Fluorescence Intensity; HGSOC, high-grade serous ovarian cancer; CTLA-4, cytotoxic T lymphocyte-associated protein 4.

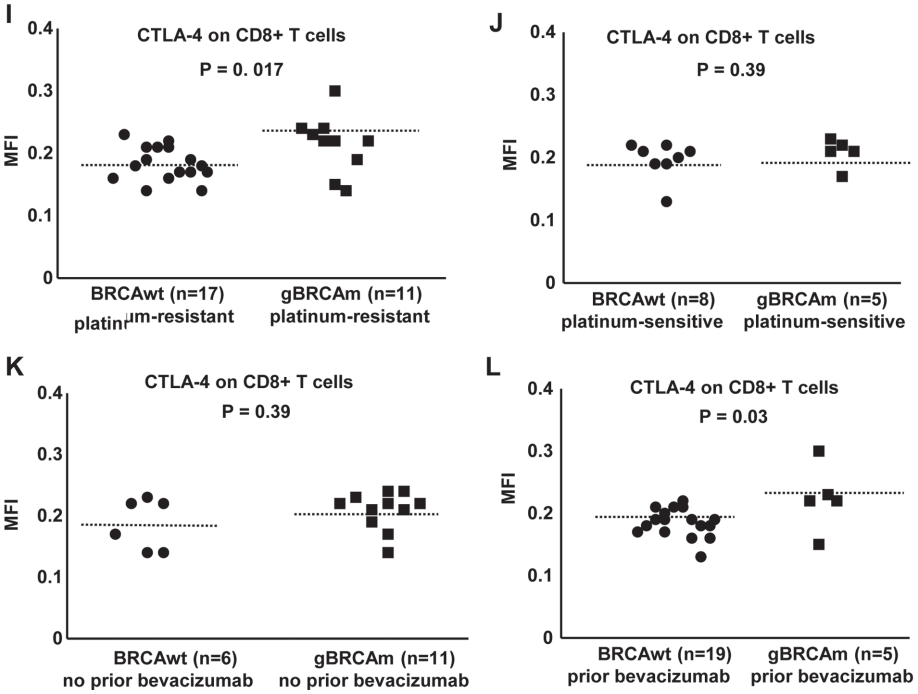

Figure S2. There was no difference in TIM-3 and PD-1 expression on $CD8^+$ T cells between patients with gBRCAm and patients with BRCAwt. (A) TIM-3 and (B) PD-1 expression on $CD8^+$ T cells was similar between patients with gBRCAm and patients with BRCAwt. (C) TIM-3 and (D) PD-1 expression on $CD8^+$ T cells was similar between patients with gBRCAm and patients with BRCAwt <5 years post-diagnosis. (E) TIM-3 and (F) PD-1 expression on $CD8^+$ T cells was similar between patients with gBRCAm and patients with BRCAwt ≥5 post-diagnosis. The dotted lines represent the median values. gBRCAm, germline *BRCA* mutation; BRCAwt, germline *BRCA* wild-type; MFI, Median Fluorescence Intensity; TIM-3, T cell immunoglobulin and mucin domain 3; PD-1, programmed cell death protein 1.

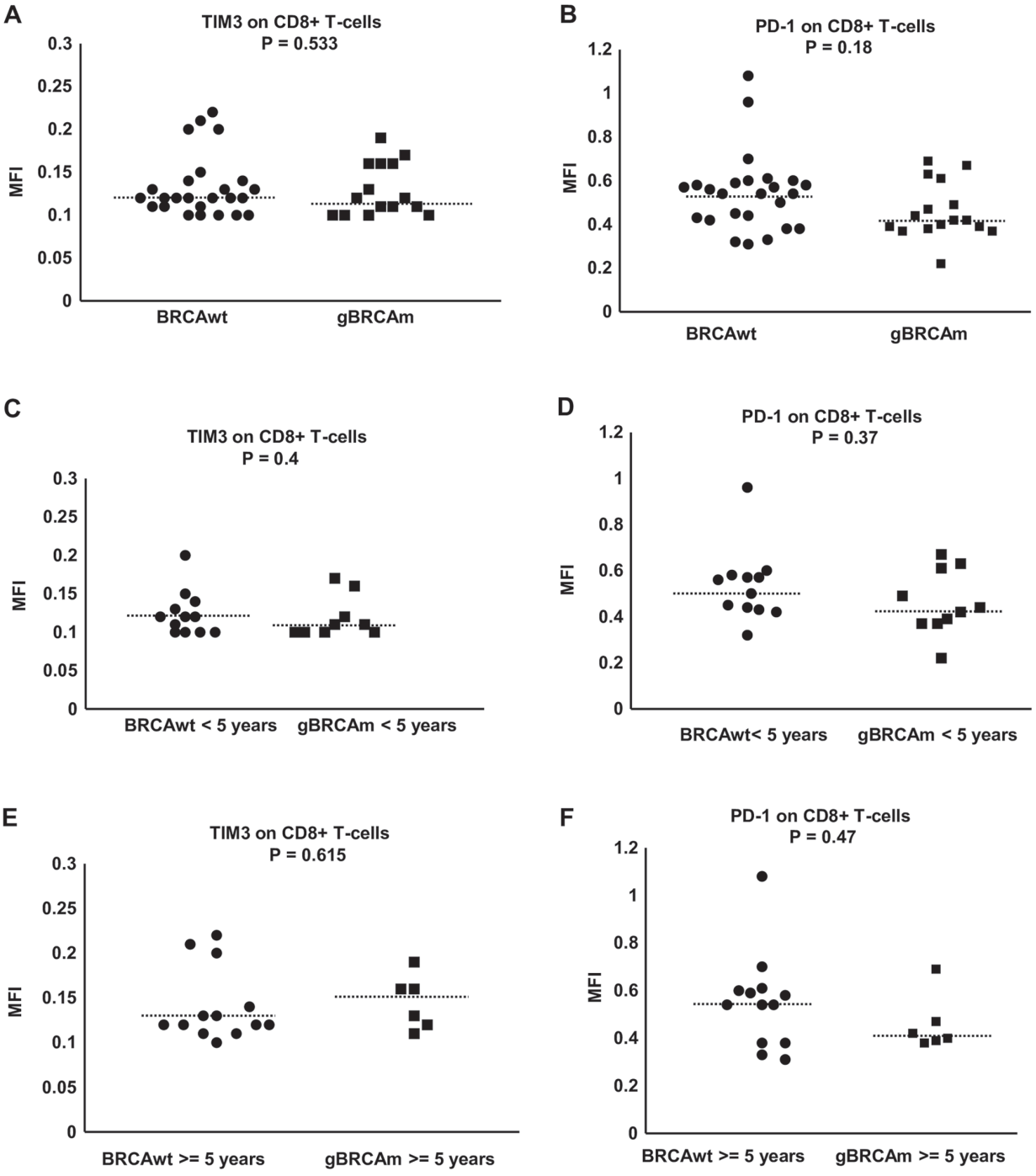

Figure S3. CTLA-4 expression on Tregs and the percentage of granulocytic MDSCs were not associated with PFS. (A) CTLA-4 expression on Tregs and (B) the percentage of MDSCs were not associated with PFS in the HGSOC cohort under study. (C) CTLA-4 expression on Tregs and (D) the percentage of MDSCs were not associated with PFS among patients with BRCAwt. (E) CTLA-4 expression on Tregs and (F) the percentage of MDSCs were not associated with PFS among patients with gBRCAm. CTLA-4, cytotoxic T lymphocyte-associated protein 4; Tregs, T regulatory cells; MDSCs, myeloid-derived suppressor cells; gBRCAm: germline *BRCA* mutation; BRCAwt, germline *BRCA* wild-type; HGSOC, high-grade serous ovarian cancer; PFS, progression-free survival.

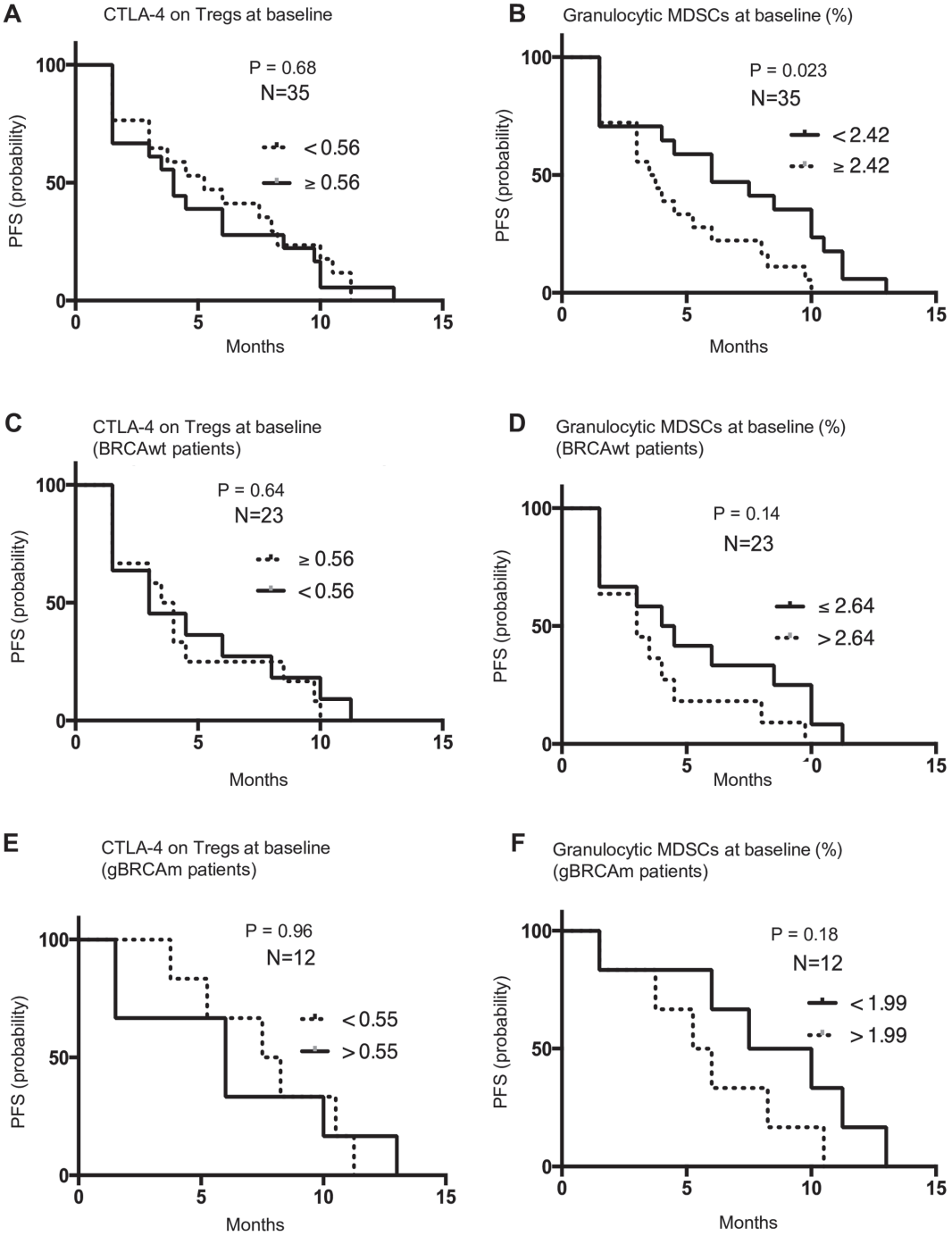

Table SI. Conjugates, catalogue numbers and dilutions used for the monoclonal antibodies in the present study.

Target	Conjugation	Clone	Cat. no.	Dilution
CD4	PE/Cy7	RPA-T4	300512	1:40
PD-1	APC/Cy7	EH12.2H7	329922	1:40
TIM-3	APC	F38-2E2	345012	1:40
Foxp3	Alexa Fluor 488	206D	320112	1:40
CTLA-4	PE	L3D10	349906	1:40
CD25	PE/Cy5	BC96	302608	1:40
CD8	Pacific Blue	SK1	344718	1:40
CD45	APC/Cy7	HI30	304014	1:40
CD3	Alexa Fluor 647	OKT3	317312	1:40
CD19	Alexa Fluor 647	HIB19	302220	1:40
CD56	Alexa Fluor 647	MEM-188	304612	1:40
CD40	Pacific Blue	5C3	334320	1:100
CD14	PerCP/Cy5.5	HCD14	325622	1:40
HLA-DR	PE/Cy7	L243	307616	1:40
CD11b	Alexa Fluor 488	ICRF44	301318	1:40
CD33	PE	WM53	303404	1:40

Table SII. Immune subsets and functional markers.

Immune subset	Phenotype	Functional markers
$CD4^+$ T lymphocytes	$CD8^-CD4^+$	PD-1, CTLA-4
$CD8^+$T lymphocytes	$CD8^+CD4^-$	TIM-3, PD-1
Regulatory T cells	$CD8^-CD4^+CD25^{high}Foxp3^+$	PD-1, CTLA-4
$Foxp3^-CD4^+$ T cells	$CD8^-CD4^+Foxp3^-$	PD-1, CTLA-4
Immune suppressive monocytes	$CD14^+$HLA-$DR^{low/neg}$	HLA-DR
MDSCs phenotypes		
Lineage-MDSCs	$CD3^-CD19^-CD56^-HLA^-DR^-CD11b^+CD33^+$	CD40
Monocytic MDSCs	$CD3^-CD19^-CD56^-HLA^-DR^-CD11b^+CD33^+CD14^+$	CD40
Immature MDSCs	$CD3^-CD19^-CD56^-HLA^-DR^-CD11b^+CD33^+CD14^-$	CD40
Granulocytic MDSCs	$CD11b^+CD33^+CD14^-$	CD40

The following monoclonal antibodies (18) were used: Pacific Blue-CD8 clone SK1, PE-Cy7-CD4 clone RPA-T4, PE-Cy5-CD25 clone BC96, and Alexa Fluor 488-Foxp3 clone 206D, APC-Cy7-PD-1 clone EH12.2H7, PE-CTLA-4 clone L3D10, and APC-Tim-3 clone F38-2E2 were used for T cells. For monocyte analysis, APC-Cy7-CD45 clone HI30, PE-Cy7-HLA-DR clone L243, PerCP-CD14 clone HCD14 were used. For MDSCs, APC-Cy7-CD45 clone HI30, Alexa Fluor 647-CD3 clone OKT3, Alexa Fluor 647-CD56 clone MEM-188, Alexa Fluor 647-CD19 clone HIB19, PE-Cy7-HLA-DR clone L243, PerCP-CD14 clone HCD14, Alexa Fluor 488 CD11b clone ICRF44, PE-CD33 clone WM53, and Pacific Blue-CD40 clone 5C3 were used. For analysis of Foxp3 expression, cells were fixed and permeabilized using a Fix/Perm buffer (eBioscience) according to the manufacturer's instructions, then labeled with anti-Foxp3 antibody. MDSCs, myeloid-derived suppressor cells.