Surface molecule CD229 as a novel target for the diagnosis and treatment of multiple myeloma

Djordje Atanackovic,[1] Jens Panse,[1,4] York Hildebrandt,[2] Adam Jadczak,[2] Sebastian Kobold,[1] Yanran Cao,[1] Julia Templin,[1] Sabrina Meyer,[1] Henrike Reinhard,[1] Katrin Bartels,[1] Nesrine Lajmi,[1] Axel R. Zander,[2] Andreas H. Marx,[3] Carsten Bokemeyer,[1] and Nicolaus Kröger[2]

[1]Center of Oncology, Department of Internal Medicine II, Oncology/Hematology/Stem Cell Transplantation, University Cancer Center Hamburg (Hubertus Wald Tumorzentrum); [2]Department of Stem Cell Transplantation: [3]Institute for Pathology; University Medical Center Hamburg-Eppendorf, Hamburg, and [4]University Medical Center Aachen, RWTH Aachen, Department of Internal Medicine IV, Oncology/Hematology, Aachen, Germany

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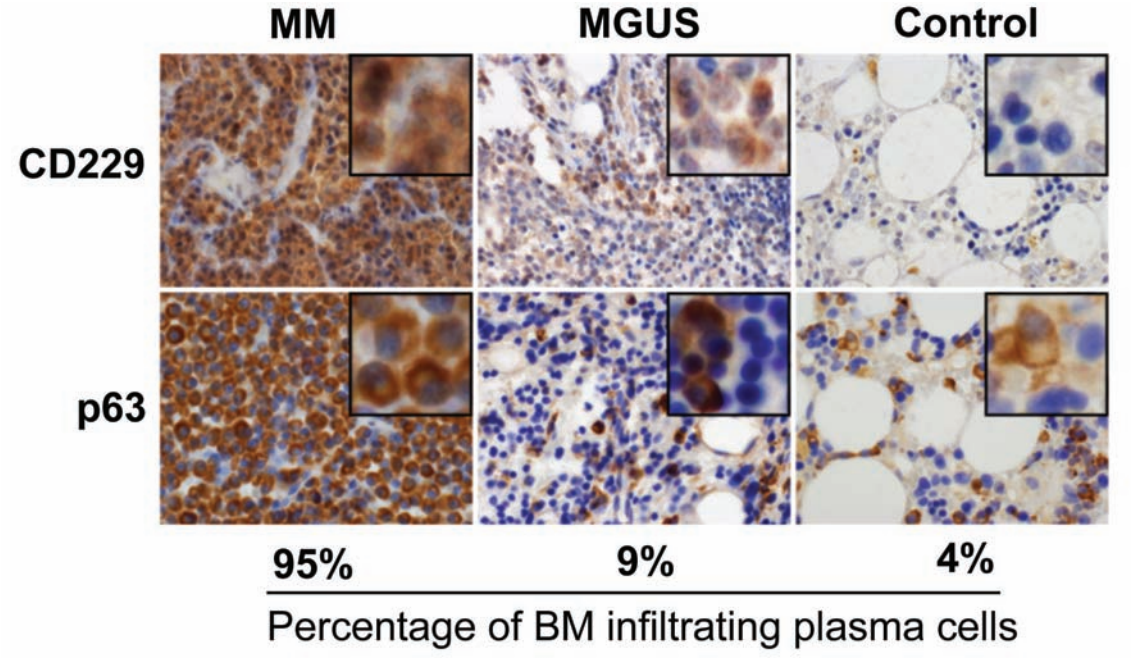
Online Supplementary Figure S1. Immunohistochemical staining of CD229 expression on bone marrow (BM)-residing primary myeloma cells. Selected BM biopsies of MGUS and MM patients and a healthy control were analyzed by immunohistochemistry (magnification x400). Staining was performed using a plasma cell-specific antibody raised against p63 and an anti-CD229 antibody. Percentages of BM-infiltrating plasma cells are given for each sample.



Online Supplementary Table S1.

Target	Conjugate	Manufacturer
CD229 (clone 249936)	PE	R&D Systems[1]
CD3	APC	Becton Dickinson[2]
CD3	PerCP	Becton Dickinson[2]
CD4	FITC	Becton Dickinson[2]
CD8	PerCP	Becton Dickinson[2]
CD14	FITC	IQ Products[3]
CD15	FITC	Becton Dickinson[2]
CD19	FITC	Becton Dickinson[2]
CD19	PC5	Beckman Coulter[4]
CD20	PC7	Beckman Coulter[4]
CD27	APC	Becton Dickinson[2]
CD28	FITC	Beckman Coulter[4]
CD34	FITC	Becton Dickinson[2]
CD38	PE	Beckman Coulter[4]
CD45	FITC/PC7	Beckman Coulter[4]
CD56	FITC	Becton Dickinson[2]
CD56	PC5	Beckman Coulter[4]
CD117	PC7	Beckman Coulter[4]
CD138	PC5	Beckman Coulter[4]

[1]R&D Systems, Minneapolis, MN, USA; [2]Becton Dickinson, Heidelberg, Germany; [3]IQ Products, Groningen, Netherlands; [4]Beckman Coulter, Brea, CA, USA.

Online Supplementary Table S2. Results from an analysis of protein expression of a variety of surface molecules using lysates of the myeloma cell line MOLP-8. Sections derived from a scan of the whole human phospho-immunoreceptor antibody array were prepared using Photoshop CS2 (Adobe). Unspecific background levels, as measured for the internal negative control (PBS), were subtracted using ImageJ software (Abramoff MD, Magelhaes PJ, Ram SJ. Image Processing with ImageJ. Biophotonics International. 2004;11(7):36-42). Indicated intensities represent the mean of the area under the curve of individual dot sections. Immunoreceptors DNAM-1, ILT6/CD85e, NKp46/NCR1, and Siglec-9 were omitted from the quantitative analysis because of contaminated spots.

1	2B4/SLAMF4	4.37
2	BLAME/SLAMF8	4.04
3	BTLA	1.09
4	CD3ε	0.27
5	CD5	0.83
6	CD6	0.44
7	CD28	0.50
8	CD84/SLAMF5	0.45
9	CD229/SLAMF3	12.46
10	CEACAM-1	0.83
11	CLEC-1	0.56
12	CLEC-2	0.93
13	CRACC/SLAMF7	3.59
14	CTLA-4/CD152	0.57
15	DCIR/CLEC4A	0.38
16	Dectin-1/ CLEC7A	0.44
17	Fcε RII/CD23	1.24
18	Fcγ RIIA	2.43
19	Fcγ RIIIA/B	1.11
20	FcRH1/IRTA5	0.37
21	FcRH2/IRTA4	1.59
22	FcRH4/IRTA1	7.19
23	FcRH5/IRTA2	2.53
24	ILT2/CD85j	4.85
25	ILT3/CD85k	0.55
26	ILT4/CD85d	0.16
27	ILT5/CD85a	0.34
28	Integrin β3/CD61	0.77
29	KIR2DL4	2.11
30	LAIR-1	1.01
31	LAIR-2	1.84
32	LMIR1/CD300A	0.50
33	LMIR2/CD300C	0.08
34	LMIR3/CD300F	0.58
35	LMIR6/CD300E	0.55
36	MDL-1/CLEC5A	-0.18
37	NKp30/NCR3	-0.36
38	NKp44/NCR2	0.81
39	NKp80/KLRF1	1.20
40	NTB-A/SLAMF6	1.02
41	PD-1	1.10
42	PECAM/CD31	1.26
43	SHIP-1	-0.02
44	SHP-1	-0.14
45	SHP-2	1.36
46	Siglec-2/CD22	1.39
47	Siglec-3/CD33	-0.21
48	Siglec-5	0.58
49	Siglec-7	3.32
50	Siglec-10	1.19
51	SIRP-β1	1.14
52	SLAM/CD150	2.97
53	TREM-1	1.15
54	TREM-2	2.09
55	TREML1/TLT-1	4.31