Electronic Supplementary Material (ESI) for Journal of Materials Chemistry B.

Supporting Information

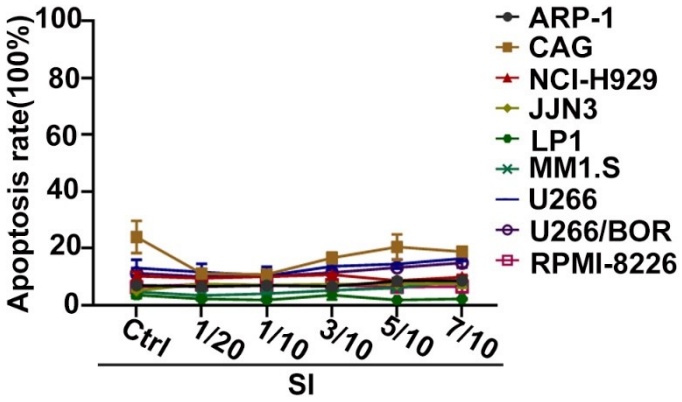

Figure S1 SI does not induce HMCLs apoptosis. HMCLs were incubated with indicated concentrations of CS for 24h and submitted to flow cytometry to analyze cell apoptosis.

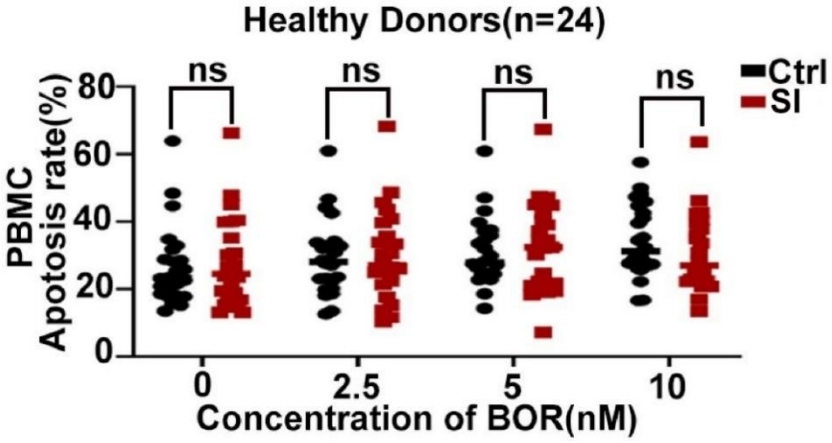

Figure S2 The SI/BOR combination treatment does not induce apoptosis of Peripheral blood mononuclear cells. Peripheral blood mononuclear cells isolated from healthy donors were exposed to 1/2 concentration of SI and/or BOR (concentration was indicated in the picture) for 24 h and analyzed by flow cytometry.

Table S1 The IC50 values of BOR

Cell lines	APR-1	U266	U266/BOR

BOR alone (IC50，(95%CI, nM))	5.31 (4.64-6.72)	7.87 (7.0-10.0)	65.58 (44.38-92.85)
CS/BOR (IC50，(95%CI, nM))	3.01(2.41-3.60)	4.59 (3.97-5.29)	18.44 (9.36-28.64)

Table S2 Ion concentration of ceramic extracts diluted with control media.

	Ca (μg/ml)	P (μg/ml)	Si (μg/ml)
DMEM①	62.75±0.87	16.03±0.58	0.35±0.04
RPMI 1640②	62.34±1.23	15.94±0.89	0.36±0.05
CS/1 in ①	63.54±0.16	16.31±0.52	124.77±1.62[a]
CS/1/2 in ①	61.45±1.30	15.66±0.67	62.18±1.88[a]
CS/1/4 in ①	61.90±1.53	16.08±0.66	30.38±1.15[a]
CS/1 in ②	62.32±1.00	16.29±0.41	124.30±5.07[a]
CS/1/2 in ②	62.00±1.45	15.44±0.48	61.08±3.12[a]
CS/1/4 in ②	61.84±1.55	16.18±0.94	31.05±1.48[a]

[a] Indicates that the Si ion concentration in the samples is significantly higher than those in control media of DMEM or RPMI 1640 ($p < 0.01$)

Table S3 Patient clinical characteristics.

No.	Gender	Age	FISH	Disease Type	Disease Status	Revised International Staging System Stage	Durie-Salmon stage	Mayo risk stratification at diagnosis (mSMART)
#1	Male	47	Normal	IgG, kappa	NDMM	I	IIA	Standard Risk
#2	Male	64	Normal	IgA, kappa	RRMM	III	IIIB	High Risk

#3	Female	56	Normal	IgG, kappa	NDMM	I	IIA	Standard Risk
#4	Female	64	Normal	IgG, kappa	RRMM	II	IIIB	Standard Risk
#5	Male	61	1q21	IgA, kappa	NDMM	III	IIIB	Standard Risk
#6	Male	69	13q14.3	IgG, kappa	NDMM	III	IIIA	High Risk
#7	Female	74	Normal	IgA, lamda	RRMM	I	IIIB	Standard Risk
#8	Male	83	t(11,14); t(4,14); 13q14.3	IgD, kappa	NDMM	III	IIIB	High Risk
#9	Male	59	1q21	IgA, lamda	RRMM	III	IIIA	High Risk
#10	Female	60	1q21	IgG, lamda	RRMM	III	IIIA	High Risk

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