

## SUPPLEMENTARY INFORMATION

Isothiocyanates are detected in human synovial fluid following broccoli consumption and can affect the tissues of the knee joint.

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## Supplementary file S1

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Detector	Reporter	Quencher
18S-Hs99999901_s1	FAM	Non Fluorescent
ADAMTS1-Hs00199608_m1	FAM	Non Fluorescent
BMP6-Hs01099594_m1	FAM	Non Fluorescent
BST2-Hs01561315_m1	FAM	Non Fluorescent
CCL5-Hs00982282_m1	FAM	Non Fluorescent
CCL8-Hs04187715_m1	FAM	Non Fluorescent
COL1A2-Hs01028969_m1	FAM	Non Fluorescent
COL4A1-Hs00266237_m1	FAM	Non Fluorescent
CXCL9-Hs00171065_m1	FAM	Non Fluorescent
CCL20-Hs01011368_m1	FAM	Non Fluorescent
CCL7-Hs00171147_m1	FAM	Non Fluorescent
CD274-Hs01125301_m1	FAM	Non Fluorescent
CPXM1-Hs00219709_m1	FAM	Non Fluorescent
GBP3-Hs00544385_m1	FAM	Non Fluorescent
GCLM-Hs00157694_m1	FAM	Non Fluorescent
IFI27-Hs01086370_m1	FAM	Non Fluorescent
IFI6-Hs00242571_m1	FAM	Non Fluorescent
IFI6-Hs01564159_m1	FAM	Non Fluorescent
IGFBP4-Hs01057900_m1	FAM	Non Fluorescent
IL1A-Hs00174092_m1	FAM	Non Fluorescent
IL1B-Hs01555410_m1	FAM	Non Fluorescent
LCN2-Hs01008571_m1	FAM	Non Fluorescent
MARCKS-Hs00158993_m1	FAM	Non Fluorescent
MMP3-Hs00968305_m1	FAM	Non Fluorescent
NQO1-Hs01045994_m1	FAM	Non Fluorescent
EMILIN1-Hs00915216_mH	FAM	Non Fluorescent
FAIM3-Hs01056796_m1	FAM	Non Fluorescent
FCAMR-Hs01049677_m1	FAM	Non Fluorescent
GBP2-Hs00894837_m1	FAM	Non Fluorescent
HERC5-Hs01061812_m1	FAM	Non Fluorescent
HMOX1-Hs01110250_m1	FAM	Non Fluorescent
ICAM1-Hs00164932_m1	FAM	Non Fluorescent
IFI44L-Hs00915292_m1	FAM	Non Fluorescent
IFI44-Hs00951349_m1	FAM	Non Fluorescent
IFIT2-Hs00533665_m1	FAM	Non Fluorescent
IL15RA-Hs00542604_m1	FAM	Non Fluorescent
IL36G-Hs00219742_m1	FAM	Non Fluorescent
IL6-Hs00985639_m1	FAM	Non Fluorescent
IL8-Hs00174103_m1	FAM	Non Fluorescent
IRF1-Hs00971960_m1	FAM	Non Fluorescent
LRP8-Hs00902382_m1	FAM	Non Fluorescent
ME1-Hs00159110_m1	FAM	Non Fluorescent
MMP12-Hs00899662_m1	FAM	Non Fluorescent
MMP13-Hs00233992_m1	FAM	Non Fluorescent

OASL-Hs00984387_m1	FAM	Non Fluorescent
PARP14-Hs00981511_m1	FAM	Non Fluorescent
PENK-Hs00175049_m1	FAM	Non Fluorescent
PIM2-Hs00179139_m1	FAM	Non Fluorescent
PIR-Hs01125822_m1	FAM	Non Fluorescent
POPDC3-Hs01592415_m1	FAM	Non Fluorescent
PTX3-Hs01073991_m1	FAM	Non Fluorescent
SELE-Hs00950401_m1	FAM	Non Fluorescent
SFRP1-Hs00610060_m1	FAM	Non Fluorescent
SLC15A3-Hs00275455_m1	FAM	Non Fluorescent
SLC40A1-Hs00205888_m1	FAM	Non Fluorescent
TNFSF10-Hs00921974_m1	FAM	Non Fluorescent
TRAF1-Hs01090169_m1	FAM	Non Fluorescent
TXNRD1-Hs00917067_m1	FAM	Non Fluorescent
UBD-Hs00197374_m1	FAM	Non Fluorescent
UBE2L6-Hs01125548_m1	FAM	Non Fluorescent
S100A4-Hs00243202_m1	FAM	Non Fluorescent
TSG6-Hs01113602_m1	FAM	Non Fluorescent
CXCL10-AJN1FLP	FAM	Non Fluorescent
IRX3-AJKAK3C	FAM	Non Fluorescent
TNFRSF4-AJ70MDM	FAM	Non Fluorescent
TGFBI-Hs00932745_m1	FAM	Non Fluorescent
COL5A1-Hs00609133_m1	FAM	Non Fluorescent
THBS3-Hs00938498_m1	FAM	Non Fluorescent
CTSD-Hs00157205_m1	FAM	Non Fluorescent
FN1-Hs00415006_m1	FAM	Non Fluorescent
PRG4-Hs00981633_m1	FAM	Non Fluorescent
COMP-Hs00164359_m1	FAM	Non Fluorescent
HSPG2-Hs00194179_m1	FAM	Non Fluorescent
HABP2-Hs00188053_m1	FAM	Non Fluorescent
A2M-Hs00929971_m1	FAM	Non Fluorescent
LUM-Hs00929860_m1	FAM	Non Fluorescent
THBS4-Hs00170261_m1	FAM	Non Fluorescent
GPX3-Hs01078668_m1	FAM	Non Fluorescent
SAA4-Hs00197854_m1	FAM	Non Fluorescent
HAPLN1-Hs01091999_m1	FAM	Non Fluorescent
SOD3-Hs00162090_m1	FAM	Non Fluorescent
FMOD-Hs00157619_m1	FAM	Non Fluorescent
TNFAIP6-Hs01113602_m1	FAM	Non Fluorescent
COL6A1-Hs01095585_m1	FAM	Non Fluorescent
OGN-Hs00247901_m1	FAM	Non Fluorescent
ITIH3-Hs00158314_m1	FAM	Non Fluorescent
HTRA1-Hs01016151_m1	FAM	Non Fluorescent
SERPIND1-Hs00164821_m1	FAM	Non Fluorescent
ITGBL1-Hs01557019_m1	FAM	Non Fluorescent
ADIPOQ-Hs00977214_m1	FAM	Non Fluorescent
MMP2-Hs01548727_m1	FAM	Non Fluorescent
RPL13A-Hs01578912_m1	FAM	Non Fluorescent
YWHAZ-Hs00237047_m1	FAM	Non Fluorescent
GDF11-Hs00195156_m1	FAM	Non Fluorescent
TNFSF11-Hs00243522_m1	FAM	Non Fluorescent

**Supplementary S1.** Assays for gene expression (shown) were supplied by Applied Biosystems and used to obtain custom Taqman Low Density Arrays. FAM, 6-carboxyfluorescein.

Eligible		Not Eligible	
Reason for Exclusion	Number	Reason for Exclusion	Number
Unable to contact	12	Smoker	14
Unsuitable TKR date	34	Rheumatoid Arthritis	10
Decline-No reason given	10	Inflammation/Infection	20
Decline-Not interested	34	Hormone Therapy/Steroids	12
Decline-Time factors	8	No freezer capacity	6
Recruited	40	Doesn't like broccoli	28
Not contacted-end of study	5	Unable to adhere to diet	12
		Unprepared to adhere to diet	8
		Already recruited	6
		Not for TKR	6
		Unwilling to comply with sampling	1
<b>Subtotal</b>	<b>123</b>		<b>143</b>
<b>Total</b>	<b>266</b>		

**Supplementary S2. Study Recruitment details.** In total 266 patients scheduled for total knee replacement were screened using the eligibility criteria (table 1). Eligible and non-eligible patients (numbers shown) were excluded from the study for the reasons given in the above table.

Accession	Protein	Previous	Peptide sequence	Next	Abundance		FOLD		P VALUE
					LOW	HIGH	CHANGE		
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	K	GPQGPAGRDGLQVPLVLPAG	P	0.382	0.051	0.132	5.59E-09	
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	G	EPGPTGLPPGGER	G	0.013	0.002	0.170	3.35E-08	
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	K	GEQDVGQPGPRVQVQPPG	P	20.002	4.165	0.208	5.05E-08	
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	L	KGNEGPPPGPAGSPGER	G	20.002	4.165	0.208	5.05E-08	
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	N	AGPPGPPGPAK	E	0.102	0.022	0.215	7.26E-08	
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	G	APGPSGARGER	G	0.006	0.002	0.249	1.59E-07	
P16112	Aggrecan core protein OS=Homo sapiens GN=ACAN	R	LEQFTFQAL	E	0.378	0.081	0.214	1.22E-06	
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	P	GDRGEPGPPGAGFAGPPGADGQPGAK	G	1.337	0.170	0.127	1.76E-06	
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	G	ITGKPGPK	G	0.106	0.019	0.178	2.44E-06	
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	R	GETGPAGPTG	V	0.136	0.024	0.176	3.37E-06	
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	P	GAPGQGFQGGPGEPEGASGPMGPRGPPGPPGK	N	1.002	0.097	0.096	7.09E-06	
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	R	NGDGPVGGPSPGSP	G	0.003	0.001	0.230	7.70E-06	
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	T	GPVGGPPGAGQPKD	G	0.612	0.138	0.226	7.94E-06	
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	D	AGAPGAPGSQAGPLQGMPPER	G	0.018	0.005	0.266	1.31E-05	
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	R	AAVDYCEHYSPDCDTAVPTDTPSQSDPNP	D	0.369	0.149	0.402	1.31E-05	
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	R	GVQGGPPGAGP	R	0.095	0.031	0.322	1.41E-05	
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	R	TGDAGVPPGG	P	0.300	0.094	0.312	2.08E-05	
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	N	DGARGSDGQGGPPGPTAGFPPSPGAK	G	1.124	0.056	0.050	2.21E-05	
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	G	PPGPPGPAKE	G	0.145	0.054	0.372	3.37E-05	
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	K	TGPIGQGAPGKPPGD	L	2.213	0.843	0.381	6.02E-05	
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	R	GSPGQGVKGESGK	G	0.002	0.001	0.510	9.16E-05	
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	D	GPCGAEVPECECPVCP	D	0.117	0.023	0.198	9.25E-05	
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	K	GPLKPLGPMGADGPPHPGKEGPP	G	2.564	0.300	0.012	1.09E-04	
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	R	PPGPPGPPG	A	4.018	1.104	0.275	1.13E-04	
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	D	GTSGHPGIPGPPGR	G	0.788	0.154	0.195	1.36E-04	
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	P	GKEGPPGK	G	5.071	0.330	0.065	1.36E-04	
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	K	GDKGEQPPGPTGQGGPIGQGPSADGEPGP	R	4.256	0.690	0.162	1.45E-04	
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	G	VRGEPGPPGAGAAGPAGNPGADGPPGAK	G	3.286	0.641	0.195	1.52E-04	
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	K	0.464	G	0.464	0.235	0.506	1.53E-04	
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	G	APGIAGAPGPPGAPGSPQGGPPGPPGK	G	0.430	0.047	0.109	1.56E-04	
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	G	PRGAPGPPGR	D	0.030	0.011	0.356	1.69E-04	
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	K	DLQLCHPFDGVEYVWD	N	10.558	3.056	0.289	2.01E-04	
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	G	PPGSPGPRGQVGMGPPGPK	G	0.110	0.022	0.197	2.04E-04	
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	R	GVPPGPAVGPAG	K	0.281	0.122	0.432	2.06E-04	
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	R	GENGSPGAPGAPGHPGPPGVPGPAG	K	12.392	4.575	0.369	2.07E-04	
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	G	SPGAPGPTGAR	G	0.085	0.031	0.366	2.17E-04	
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	S	PPGDPGPPGMPGPPGLKGDGSPK	G	2.857	0.085	0.030	2.75E-04	
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	P	SPNSNGPPGPPGSPGPK	D	0.005	0.002	0.326	3.09E-04	
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	R	GLPSPGNSNGPPGPPGSPGKDGPP	G	0.016	0.002	0.101	3.32E-04	
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	Q	GLPLGAKGKTK	G	0.003	0.001	0.213	3.63E-04	
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	D	GSPGKDVGR	G	0.056	0.016	0.285	3.76E-04	
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	I	GPPGKGLKPLGLMPGADGPPHPGK	E	89.489	8.247	0.092	4.79E-04	
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	R	GPSGLQPPGPPGSGEGPSGASGAPGPPGPPG	A	0.486	0.030	0.061	5.44E-04	
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	R	TGDAGVPPGPPGPPG	P	0.036	0.008	0.229	5.55E-04	
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	K	SGDRGESGAPGAPGAPGPA	G	5.699	1.794	0.315	5.68E-04	
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	R	GLTGPVPPGPA	G	0.001	0.000	0.531	6.32E-04	
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	R	GEPPGQGHAGAQQPPGP	P	0.238	0.044	0.185	7.33E-04	
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	K	AGERGVPG	P	0.023	0.012	0.516	7.82E-04	
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	P	GPAGFAGPPGADGQPAKGEPPGADAK	G	15.407	3.668	0.238	7.90E-04	
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	K	GAAGPPGPPGAAAGTGLQGMPPGERGLGS	P	4.346	0.088	0.020	9.17E-04	
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	K	GEMGPAGI	P	0.259	0.077	0.299	9.49E-04	
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	S	PPGKGEMGPAGIPAGPLMGAR	G	13.034	3.551	0.272	1.01E-03	
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	P	KGTGPIGQAGPKGPPDGLR	G	0.527	0.167	0.317	1.02E-03	
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	P	GPVPPGPPGPPSPAGDFSLPQPPQEK	A	0.084	0.012	0.146	1.17E-03	
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	I	TGSPGIPGPPGPPGPPGPKGAK	G	2.553	0.184	0.072	1.17E-03	
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	K	GEPPGVVQGP	P	0.043	0.025	0.590	1.21E-03	
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	K	GSPGPPVFPDPPGPPGPPGADGQDPP	G	0.012	0.005	0.389	1.44E-03	
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	P	GNSGAPQR	G	0.015	0.006	0.412	1.52E-03	
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	P	PGIKGAPVGFPPGPK	G	78.065	18.196	0.233	1.58E-03	
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	P	GEPPGRLGLPK	G	4.702	3.061	0.651	1.87E-03	
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	R	GPSGAPGADGPPGPPG	I	7.462	2.015	0.270	1.99E-03	
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	G	VPPGPAVGPAGK	D	0.163	0.058	0.354	2.01E-03	
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	G	PSNAGPPGPPGPAK	E	0.027	0.003	0.122	2.08E-03	
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	P	IGPPGPAQPGDK	G	0.632	0.214	0.338	2.27E-03	
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	P	TKGPPGK	G	2.610	0.891	0.341	2.38E-03	
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	Q	DAATGSYDKALR	F	1.141	0.724	0.635	2.44E-03	
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	K	GPADGERGSPGA	G	0.005	0.002	0.390	2.50E-03	
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	P	PPGMPGPPGAPGPPGEGSR	E	0.078	0.021	0.271	3.00E-03	
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	K	GNSGDDGAPGPPGERGPPGQPT	G	1.904	0.414	0.218	3.20E-03	
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	G	PAGPRPVGSPGPPGK	D	0.698	0.357	0.511	3.20E-03	
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	P	GVTGMDGQPGPK	G	0.408	0.153	0.375	3.29E-03	
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	I	QLQLGPPGPK	G	0.036	0.015	0.421	3.31E-03	
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	G	GGADGVGPK	D	0.075	0.031	0.416	3.38E-03	
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	G	APDRGEPGPPGAGFAGPPGADGQPGAK	G	2.434	0.712	0.293	3.42E-03	
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	K	PRGRTGAPRGPVEVPPG	P	0.005	0.002	0.449	3.73E-03	
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	G	PPGPAKEGAPGK	G	0.006	0.002	0.324	3.79E-03	
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	G	FPPGPPVGLQLGPPGPK	G	2121.023	181.427	0.086	4.00E-03	
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	R	GLPSPGPIKGP	A	0.235	0.106	0.451	4.09E-03	
Q06828	Fibromodulin OS=Homo sapiens GN=FMOD	R	SAMPADAPL	C	0.476	0.282	0.592	4.47E-03	
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	R	GLLPGKPPGPPG	P	0.002	0.001	0.297	4.48E-03	
P16112	Aggrecan core protein OS=Homo sapiens GN=ACAN	Y	PEAGFGASAAPEASR	E	0.002	0.000	0.173	4.80E-03	
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	L	GRYR	T	0.019	0.005	0.244	4.89E-03	
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	K	GSPGVPFPPGPPGPPG	A	0.001	0.000	0.417	4.90E-03	
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	K	GDAGAPGAPGSPGAPGLQGMPPGERGAA	G	7.027	1.695	0.241	5.16E-03	
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	S	DGKPPGSPGSGRPPGPPGSPGR	G	0.489	0.048	0.098	5.23E-03	
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	E	KGAPGK	G	0.554	0.110	0.198	5.53E-03	
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	P	APVGGPPGEDGDK	G	0.025	0.009	0.362	5.80E-03	
P49747	Cartilage oligomeric matrix protein OS=Homo sapiens GN=COMP	T	IPEDYETHQLR	Q	0.000	0.000	0.397	5.90E-03	
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	D	VQGMGPPGPPGPPR	G	0.052	0.016	0.307	5.94E-03	
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	G	LEGGPKTGPVGGQAGPKGPPDGLR	G	0.001	0.000	0.244	6.00E-03	
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	G	RPGQGGPPGAPGKAPGK	G	0.973	0.577	0.064	6.43E-03	
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	R	GRTGDAGVPVGGPPGPPGPPGPPGAGDFDF	L	0.183	0.014	0.075	6.45E-03	
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	P	QPPQEKADHGG	Y	0.256	0.058	0.618	6.50E-03	
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	G	PPGSGGAPGPPGQVK	G	12.081	7.056	0.584	6.51E-03	
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	R	ITSWKNPNS	W	3.259	0.457	0.140	6.78E-03	
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	G	NPQAQLGPPGQAIPGPK	G	29.634	2.149	0.073	6.87E-03	
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	K	PPGDDGPKGSPGPPVGG	D	141.469	15.288	0.108	7.19E-03	
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	G	DSGPKGK	G	0.034	0.011	0.336	7.79E-03	
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	P	PKGTGPIGQAGPKGPPDGLR	G	1.420	0.350	0.247	8.22E-03	
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	G	YQGPPEGQAGSPGPPGPPGPAIGSPGPAK	D	0.396	0.150	0.379	8.29E-03	
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	P	IGPPGPPGPPGPPG	G	42.011	1.772	0.042	9.24E-03	
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	P	GPSNAGPPGPPGPAK	E	0.058	0.033	0.577	9.29E-03	

P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	P	PGPPGAIGSPGPAK	D	1.383	0.820	0.593	9.43E-03
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	P	AGERGSPGPAK	G	0.095	0.048	0.512	0.010
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	G	SPGPDGPPGPMGPPGLKGDGSGPK	G	135.593	17.215	0.127	0.011
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	G	SPGPDGPPGPMGPPGLK	G	70.744	6.498	0.092	0.011
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	R	GSESPGHQPPGPPGPA	P	0.093	0.035	0.375	0.011
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	R	GSDGQPPGPPGATGFFGS	P	0.046	0.017	0.375	0.011
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	G	EPGSPGPK	R	31.168	21.112	0.677	0.011
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	R	GTEGPAGPAGPAGPAGVGP	G	0.004	0.001	0.164	0.012
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	G	PPGVGLGGLPSPGPK	G	5.948	0.226	0.038	0.012
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	A	GLEGGPK	T	0.023	0.012	0.527	0.012
P16112	Aggrecan core protein OS=Homo sapiens GN=ACAN	G	IAEVSGESSR	A	0.004	0.002	0.541	0.013
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	P	GRPGQPPGPPGAGEKAPGPK	G	4.903	0.506	0.103	0.013
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	P	NGPQGTGPPGPPGPPGPK	D	4.903	0.506	0.103	0.013
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	G	LGGLGPPGPK	G	1.690	0.834	0.493	0.013
P49747	Cartilage oligomeric matrix protein OS=Homo sapiens GN=COMP	G	VPDTACVLLTAAAL	G	4.734	2.264	0.478	0.014
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	P	GSPGEQSPGASGAPRPPGASAGAPK	D	0.030	0.016	0.550	0.014
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	S	GPPGPPGPAK	E	0.643	0.384	0.598	0.014
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	G	ARGPAGPQGR	G	0.148	0.076	0.512	0.014
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	K	GSIGFPPGPAK	E	0.147	0.076	0.513	0.014
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	P	EELTPTTEAAPMPTSETGAGK	E	0.500	0.071	0.142	0.016
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	R	GPTGPIGPPGAGOP	G	0.311	0.184	0.591	0.016
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	G	PTGEPGSPGPK	R	1.761	0.422	0.240	0.016
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	E	GPPGPPGAPGSPGR	G	23.383	3.460	0.148	0.016
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	E	TTGVEGPK	G	0.007	0.004	0.552	0.016
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	G	PQGAIGPPGPK	G	1.185	0.666	0.562	0.016
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	G	LPGERGRGAPGAPGAR	G	0.229	0.048	0.210	0.017
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	P	AGAAGPIGIRGPPGPPGPAK	G	5.529	0.258	0.077	0.017
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	K	GAAGPPGPAAGTGLQGM	G	0.335	0.152	0.454	0.017
P49747	Cartilage oligomeric matrix protein OS=Homo sapiens GN=COMP	D	TTMRGGR	L	0.002	0.001	0.266	0.018
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	Q	GPQPKGDPGPPGIPGR	N	0.017	0.006	0.347	0.018
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	K	GDPGPPGIRGNQDPIGQPGSPG	S	2.284	0.664	0.290	0.018
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	G	PQPKGDPGPPGIPGR	N	1833.521	601.482	0.328	0.018
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	R	DSFKVYCNFTAGGSTCV	F	0.003	0.001	0.377	0.018
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	G	APLKGENLPLGNGAPGMGR	G	5.175	0.876	0.169	0.019
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	E	NGSPGAPGAPHPGPPGPAK	S	0.005	0.002	0.517	0.019
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	P	GYQGPGEQAGSPGPPGPAIGSPGPAK	D	0.003	0.002	0.483	0.020
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	K	GAAGEPGKAG	E	0.072	0.036	0.495	0.022
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	D	GPAGPPGPPGPPGPPGPPGPK	G	90.685	6.319	0.070	0.022
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	G	PAGRDGLQGVLPAGPVPPEGDDGK	G	0.097	0.030	0.308	0.023
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	R	GRTGDAGVPPGPPGPPGPK	P	0.091	0.029	0.324	0.025
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	P	GVDGQGPGRVQGPAGPKGR	R	19998.200	3588.280	0.179	0.025
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	N	GSPGAPGAPHPGPPGPPGPAK	S	1.094	0.549	0.502	0.027
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	V	PLGLVYPR	Q	0.135	0.096	0.710	0.027
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	P	GSPGPPGPPGPPGPPGPK	G	0.037	0.011	0.291	0.027
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	G	PPGPPGSPGQSPGASGAPGR	G	0.094	0.058	0.621	0.028
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	H	PGPPGPPGPPGPPGPPGPK	T	79.784	7.546	0.095	0.028
P49747	Cartilage oligomeric matrix protein OS=Homo sapiens GN=COMP	R	AFQTVLDPEG	D	8.553	4.512	0.528	0.029
P07585	Decorin OS=Homo sapiens GN=DCN	K	LTRVPGGLA	E	72.798	13.453	0.185	0.029
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	L	EGPPGKTPGIPQAGPKGPPGDLR	L	13.412	7.597	0.566	0.030
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	K	GEPALIEPMLEGGPPGPAK	L	488.968	60.581	0.124	0.031
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	P	RGPTGPIGPPGAGQDGDK	G	1.865	0.784	0.421	0.033
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	G	ASPMGPRGPPGPPGPK	N	0.100	0.035	0.348	0.034
P49747	Cartilage oligomeric matrix protein OS=Homo sapiens GN=COMP	T	IPEDYETHLQRQA		0.002	0.001	0.584	0.034
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	A	GEPGKAGER	G	0.001	0.000	0.467	0.035
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	K	GEPGDAGAKDAGPPGAPGAPG	P	1.584	0.926	0.585	0.035
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	A	GIPGPPMK	G	0.010	0.005	0.460	0.036
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	R	GTEFGQKTPGPPGPK	G	0.027	0.015	0.555	0.036
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	P	GVGPAKGEDDK	D	121.284	30.868	0.255	0.038
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	G	MPGPRGSPGQGVK	G	1.052	0.350	0.333	0.038
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	P	PLGPPGPK	G	5.099	2.369	0.465	0.040
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	K	GDPGPPGIRGNQDPIGQPGSPG	S	0.004	0.001	0.266	0.040
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	G	LFQKQDGEDPR	G	0.025	0.015	0.608	0.041
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	K	GPPGPPGPPGPPGPPGPPGPK	N	3.006	1.864	0.620	0.043
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	T	GPAGRPEVEGPPGPPGPAK	G	0.179	0.110	0.617	0.044
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	G	MPGPRGSPGQGVK	G	0.002	0.001	0.408	0.046
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	A	IGPPGKGLGKPLGMPGADGPPGHPGK	E	24.686	7.024	0.285	0.046
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	K	GKQKEPALIE	G	0.581	0.433	0.746	0.047
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	P	GKTGPIGQAGPKGPPGDLR	G	0.348	0.092	0.266	0.047
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	R	GSPGPPGAGFPFARGPLGPP	G	0.173	0.095	0.548	0.047
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	R	GLTGPPIGPPGAGAPGDKGESGSPGA	G	3.461	1.471	0.425	0.048
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	R	VPGPPGSGNAGPPGPPGPAK	G	1.068	0.336	0.314	0.048
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	K	GKLGVPGLP	G	0.241	0.021	0.086	0.048
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	G	LPGIAGPRGSPGER	G	0.137	0.079	0.578	0.049
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	K	GNSGEPGAP	G	0.598	0.407	0.681	0.049
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	L	LRFFGER	G	0.024	0.017	0.686	0.049
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	Q	GPQPKGDPGPPGIPGR	N	113.223	25.338	0.224	0.050
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	K	EPTSKPK	V	0.330	0.238	0.721	0.052
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	G	PSGAAGPPGPK	G	0.066	0.036	0.686	0.053
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	R	GPSGAPGADGPPGPPGPPGPPGPK	A	4.566	0.906	0.199	0.053
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	G	AAGRVPGPPGPPGPPGPPGPAK	E	0.146	0.051	0.348	0.054
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	G	ADGPPGPPGPPGPPGPPGPK	G	0.001	0.001	0.557	0.055
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	R	GEPGPPGPPGPPGPPGPAK	Q	0.149	0.099	0.666	0.055
P49747	Cartilage oligomeric matrix protein OS=Homo sapiens GN=COMP	V	GLFAKANK	Q	66.099	14.851	0.225	0.056
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	P	GVSGPK	G	0.009	0.005	0.576	0.056
P07585	Decorin OS=Homo sapiens GN=DCN	I	QLGNKY	I	0.288	0.159	0.553	0.057
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	L	PGEPPGPPGPK	G	0.975	0.104	0.106	0.058
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	K	GPPGDDGPKGSPGVGFG	D	8.001	4.632	0.579	0.059
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	G	DPGPPGPPGPPGDDGGR	G	0.174	0.062	0.354	0.060
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	K	GEPALIEPMLEGGPPGPAK	P	46.766	12.718	0.272	0.061
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	R	DGIPGQPLGPPGPPGPPGPK	G	62.483	5.116	0.082	0.063
Q06828	Fibromodulin OS=Homo sapiens GN=FMOD	L	DLSYNLQK	I	0.555	0.415	0.748	0.068
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	K	PPGDDGPKGSPGVGPPGPPGPK	G	5.740	1.115	0.194	0.069
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	D	QASGNVK	K	0.851	0.496	0.583	0.069
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	V	PGPKGAK	G	0.102	0.030	0.295	0.070
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	Q	GESRGPDPGPPGPPGPK	G	3.908	2.770	0.709	0.072
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	A	PPGPPGPPGPPGPPGPPGPPGPK	A	0.096	0.063	0.655	0.073
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	K	GEPGDAGAKDAGPPGPAK	P	0.022	0.011	0.486	0.074
P49747	Cartilage oligomeric matrix protein OS=Homo sapiens GN=COMP	R	AFQTVLDPEGDAQIDP	N	1.158	0.696	0.601	0.075
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	G	PQGGPPGPPGPK	G	0.021	0.012	0.591	0.075
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	G	FQGGPPGPPGPPGPPGPPGPK	G	0.002	0.001	0.397	0.075
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	D	QQTGNLK	K	0.008	0.002	0.279	0.075
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	K	EGPPGKGGGPPGPPGPPGPK	P	0.141	0.073	0.520	0.076
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	P	GAEALGPAK	G	0.079	0.055	0.700	0.076
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	G	PSGPIGPPGPPGPPGPPGPK	G	0.018	0.002	0.126	0.077
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	K	GEGGPPGPPGPPGPPGPPGPK	A	0.008	0.004	0.556	0.077
P16112	Aggrecan core protein OS=Homo sapiens GN=ACAN	Q	TGYDPSSR	Y	0.004	0.001	0.289	0.078
P07585	Decorin OS=Homo sapiens GN=DCN	K	VPKLPP	D	20.495	4.776	0.233	0.078



P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	V	VGPQGP	G	0.008	0.004	0.530	0.216
P16112	Aggrecan core protein OS=Homo sapiens GN=ACAN	K	DSSPVRTY	V	0.000	0.000	0.464	0.217
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	R	GPVPSGPP	G	0.015	0.009	0.571	0.218
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	R	GQAGVMVGFPGKA	A	0.344	0.260	0.754	0.220
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	G	PQGGPGGPNPAGVGEKGEPEAGEPLGEGGPPGPK	G	40.003	15.172	0.379	0.222
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	R	GAPDRGEGPPGPAFGAPGPA	D	0.013	0.010	0.759	0.222
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	G	PAGVPPGDEDDGK	G	10.526	6.079	0.577	0.222
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	K	GDRGLPGQ	G	0.000	0.000	0.190	0.223
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	K	GADGAPGKGEPSGPEENGAPGQ	M	6.358	1.007	0.158	0.224
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	S	PGSPGDDK	T	0.007	0.002	0.257	0.225
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	R	GLAGPPGM	P	0.007	0.002	0.369	0.225
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	P	PGPPGAGKEGGK	G	0.791	0.627	0.794	0.226
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	K	LMGSEGEFFKAEN	S	400.817	303.134	0.756	0.228
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	K	GEPSPGSENGAPGQMG	R	0.008	0.005	0.662	0.228
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	P	PGPGAPGQFGQPPGPEPEASGPMGR	G	1.699	0.978	0.576	0.229
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	P	PGPPQGL	Q	0.003	0.001	0.349	0.231
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	K	GSPGAQGGPA	P	0.052	0.028	0.544	0.234
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	P	TQPSVAQKNWYSK	N	0.004	0.002	0.494	0.236
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	G	AEVPEGECCVPCDSESSTQDQETTGVGEGPKGDTGPR	G	23.321	3.351	0.144	0.238
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	R	PGPNPGAPGS	P	0.279	0.175	0.627	0.239
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	P	GEPGANGPAAAGER	G	0.001	0.001	0.818	0.243
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	K	GPQGPAGRDGLQVPLGPPAGPVGP	P	57.336	2.884	0.050	0.244
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	A	PGPPGEGK	G	0.176	0.057	0.324	0.248
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	R	GRPGAPGAPG	A	0.000	0.000	0.171	0.250
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	G	LPPIGPPGPR	G	0.457	0.140	0.308	0.252
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	R	GLPGPPSGNPNPPGSPGSGKDGPPGAPG	N	1.049	0.692	0.660	0.255
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	R	GEPGQGHAGAQGPPGPGI	N	0.009	0.006	0.682	0.255
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	N	DGARGSDGQPPGPPGATAGFSPGSAK	G	0.066	0.043	0.645	0.255
P16112	Aggrecan core protein OS=Homo sapiens GN=ACAN	P	FTCKK	G	0.055	0.016	0.286	0.261
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	K	GADGPPGAPGAGPPGPIGV	G	0.066	0.004	0.063	0.262
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	G	PPGQGLPLAGK	E	0.013	0.009	0.684	0.263
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	K	ARSLRRPAP	L	2.086	0.166	0.079	0.265
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	K	GNEGPPPPGPPAGSPGERGPAGAAGPIGIPGRPGQGGP	G	54.489	29.195	0.536	0.266
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	K	GADGPPGAPGA	G	0.050	0.003	0.064	0.270
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	S	YVDEKSTGSIIVPMGMSPGSR	G	0.019	0.003	0.173	0.271
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	R	GQGGPPGPA	G	0.018	0.006	0.350	0.272
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	K	GPDPGPPGPPVTGMDG	Q	0.000	0.000	0.167	0.275
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	K	GTEGAPLKGELNLPENGAPG	M	0.119	0.091	0.766	0.275
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	K	GEPGVPVQGG	P	0.002	0.001	0.513	0.277
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	G	PAGNPADGQPGAK	G	0.004	0.002	0.628	0.278
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	E	KGAPGK	G	0.831	0.552	0.664	0.279
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	K	GEVGPAGSPGS	N	0.001	0.000	0.422	0.281
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	P	PGPPGAPGSPGER	G	2.733	2.278	0.834	0.282
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	G	ADGSPGKDGVR	G	0.000	0.000	0.427	0.282
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	G	PPGSPGSPGK	D	0.000	0.000	0.195	0.282
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	G	PPGKNGETGPPGPPGTGPGGDK	G	0.385	0.245	0.635	0.283
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	G	APGQGGPR	G	0.000	0.000	0.641	0.285
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	S	VQGGPPG	P	0.006	0.004	0.742	0.285
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	P	PGSPGEGGSPGASGAPGRGPPGSGAGAPGK	D	0.042	0.001	0.020	0.286
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	M	GRPGAPGER	G	0.671	0.137	0.205	0.291
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	R	GAPAGPNIGP	E	0.002	0.001	0.403	0.292
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	G	PKGDAGAPGAPGK	G	0.830	0.031	0.037	0.293
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	D	DGEAGKPRGPRGPPGQGAR	G	0.581	0.067	0.116	0.296
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	A	DGVAGKPGPAGER	G	0.008	0.007	0.794	0.297
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	P	KDGTGPR	G	0.016	0.010	0.623	0.297
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	G	ASGPAGPR	G	0.001	0.000	0.144	0.297
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	P	PGSPGPKR	G	0.460	0.322	0.700	0.297
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	G	EPGSPGSENGAPGMGRPLGGER	G	0.115	0.064	0.556	0.298
P49747	Cartilage oligomeric matrix protein OS=Homo sapiens GN=COMP	R	VPNSDQKSD	G	1.890	0.751	0.397	0.298
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	R	PGPPGMPGPPGLAGPPG	E	0.086	0.005	0.063	0.299
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	A	PGVPVQGG	S	0.001	0.000	0.441	0.300
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	L	QGLGPPGK	G	0.000	0.000	0.727	0.302
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	G	PPGPMGPPGLAGPPGSEGR	E	0.268	0.021	0.078	0.302
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	G	PPGPMGPPGLAGPPGSEGR	E	0.102	0.010	0.099	0.303
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	P	PGQGGPPGK	D	0.003	0.001	0.482	0.304
P16112	Aggrecan core protein OS=Homo sapiens GN=ACAN	E	TSAYPEAGFGASAAPEASR	E	0.024	0.002	0.069	0.307
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	A	PGVPVQGG	S	0.000	0.000	0.472	0.308
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	G	PVGVQGGPPGAGEGKR	G	0.070	0.051	0.731	0.309
Q06828	Fibromodulin OS=Homo sapiens GN=FMOD	R	HLRLRY	L	0.181	0.074	0.408	0.309
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	Q	RGPTGPR	G	0.000	0.000	0.322	0.309
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	K	GSPGVPVGFDPGPPGEPGAPGQGGP	G	0.729	0.421	0.577	0.312
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	G	PTPQGGPIGPGGSPGADGEGPR	G	1.757	0.647	0.368	0.315
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	K	LLSVDAENPVGVMQGT	F	15.885	5.984	0.377	0.315
P16112	Aggrecan core protein OS=Homo sapiens GN=ACAN	E	VSGESSR	A	0.000	0.000	0.552	0.316
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	T	SSPSEIGPMANQDTIYEGIGPR	G	53.432	5.002	0.094	0.318
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	G	PKGPPGPPGK	D	241.596	149.194	0.618	0.319
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	A	PGPPGPR	G	0.021	0.014	0.661	0.324
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	K	GEQGITGSPGPIG	P	0.093	0.068	0.732	0.325
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	P	PGSPGPR	G	0.000	0.000	0.432	0.326
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	G	SPGDPGPPGMPGPPGLKGDSPK	G	1.383	0.878	0.635	0.326
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	G	SRGPPGADGVAGPK	G	0.022	0.015	0.694	0.328
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	G	DAGPAGKGEPSGPEENGAPGQMGPR	G	1.004	0.094	0.094	0.329
P49747	Cartilage oligomeric matrix protein OS=Homo sapiens GN=COMP	R	VRFFE	G	0.000	0.000	0.598	0.330
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	P	GEPGASGMPGRGPPGPPGK	N	0.057	0.041	0.719	0.331
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	R	GLPGPPSGNPNPPGPPGSG	S	0.374	0.272	0.728	0.331
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	L	PEKGGHR	G	0.002	0.001	0.592	0.334
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	K	GNEGPPGPPGAPGSPG	E	0.128	0.056	0.437	0.335
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	P	GEGGPPGPK	G	0.014	0.001	0.047	0.336
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	K	GPRGETGP	A	0.003	0.001	0.276	0.345
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	D	GNPSSDGLPGR	D	0.158	0.132	0.836	0.347
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	P	GPKGPPGDDGPK	G	0.013	0.010	0.746	0.349
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	G	APGLGIAGITAGRLAGPPGMPGR	G	0.018	0.014	0.774	0.351
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	G	PPGAPGQDGRGPPGPPGAR	G	0.001	0.000	0.313	0.351
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	R	GGPRGRLPADGLPG	P	0.019	0.014	0.740	0.351
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	P	GVVGPQGTGETGPMGERGHPGPPGPEEQGLPLGAK	E	0.007	0.005	0.747	0.352
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	I	ALSVHKK	N	0.001	0.000	0.148	0.353
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	R	GPPGMPGPPGLAGPPGEGS	R	0.086	0.020	0.232	0.356
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	P	GRPGQGGPPGAGEK	G	0.174	0.141	0.813	0.362
P16112	Aggrecan core protein OS=Homo sapiens GN=ACAN	R	TLVESVTAQP	T	0.049	0.023	0.468	0.363
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	P	PGTTPGDDGK	G	0.031	0.022	0.723	0.363
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	G	APGAPGR	G	0.005	0.003	0.644	0.366
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	K	STGSIIVPMGMGPPGRLPGLP	P	0.206	0.113	0.549	0.368
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	G	APGHPGPPGVPAGK	S	13.587	7.834	0.577	0.369
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	R	GGPNDGPPGLPP	G	0.032	0.023	0.737	0.371
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	P	PGSPGEGGSPGASGAPGR	G	0.000	0.000	0.594	0.371
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	G	RPQGGPPGAGEKAPGK	G	0.256	0.220	0.859	0.374
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	K	GEIPEPGQ	K	0.000	0.000	0.424	0.375



P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	K	GNEGPPPPGAGSPGERGAGAAPIGIP	G	1.055	0.107	0.102	0.377
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	T	GPAGPPGAPGAPGAPGVPAGKSGDR	G	0.015	0.005	0.310	0.380
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	P	GAPGLMGAR	G	0.001	0.000	0.662	0.382
P16112	Aggrecan core protein OS=Homo sapiens GN=ACAN	G	AGEISGLPSSLEDISGR	A	0.068	0.040	0.586	0.384
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	D	GLNPPPTMLMLPRFRFGGGDAGSK	G	3.886	2.168	0.558	0.387
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	P	SNAGPPGPPGPAK	E	0.010	0.007	0.666	0.389
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	K	GEPGDVQPGPRGVQGP	P	11.076	8.012	0.723	0.389
P16112	Aggrecan core protein OS=Homo sapiens GN=ACAN	V	RYPIK	A	0.000	0.000	0.413	0.389
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	E	RGPPGPA	G	0.004	0.001	0.413	0.393
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	P	GGPPGPKNSGEPGAPGSK	G	0.001	0.000	0.121	0.394
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	Q	GPPGAPGLGIAGITGARGLAGPPMPGPR	G	0.048	0.037	0.764	0.394
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	R	GAPGKGGGPPGVA	G	1.070	0.567	0.530	0.395
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	G	PPGMPGPR	G	0.002	0.000	0.048	0.399
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	L	PAGEGHR	G	0.009	0.005	0.563	0.401
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	G	PAGPQGR	G	0.000	0.000	0.717	0.401
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	R	GFPGPPVGLQLPGEKGET	G	5.307	4.256	0.802	0.403
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	L	RGFPDR	G	0.002	0.001	0.415	0.404
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	D	DGEPGQTGSPGTPGPGSPGPKR	G	288.511	170.792	0.592	0.405
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	R	GFSGLQPPGPPGSPGEGPSGA	S	0.011	0.006	0.605	0.406
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	P	GPPGPPGEGGLPLGAK	E	0.036	0.024	0.672	0.410
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	R	GFPPGPPVGLQLPGEKGET	G	1.341	1.092	0.814	0.411
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	G	PAGPTGPPVGVGARGPAGQGP	G	0.001	0.000	0.766	0.418
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	Q	GLPQPPGK	G	0.002	0.001	0.629	0.419
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	K	GDAGAPGAPGK	D	0.504	0.425	0.843	0.422
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	R	GPAGPPGRDIPGQPLPDPGPPGPPGPP	G	4.826	3.726	0.772	0.422
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	G	PRGANGAPGNDGAK	G	0.077	0.058	0.759	0.424
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	G	PPGHPGK	E	0.052	0.035	0.666	0.426
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	L	KFCHEPK	S	0.987	0.772	0.783	0.426
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	D	DLQGPVGLPAGPVGPPGEGDGDK	G	0.173	0.111	0.644	0.427
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	G	PPGLPDPGPKGAK	G	0.138	0.102	0.745	0.429
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	K	GEPALIEPMGLIEGPPGEPAG	L	15.328	10.755	0.702	0.432
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	K	GEAHPGPPGPPGPPGVEIQL	P	6.141	3.999	0.651	0.437
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	P	GPAGKPR	R	0.004	0.002	0.643	0.444
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	R	DGIPGQPLPG	P	0.001	0.000	0.743	0.444
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	R	GVQPPGAPG	P	0.000	0.000	0.450	0.446
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	D	GVPKDGR	G	1.114	0.048	0.417	0.448
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	E	GKNGAK	G	0.006	0.002	0.410	0.449
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	K	GEQGITGSPGIPGPPG	G	40.017	35.001	0.875	0.449
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	K	GEPGEAGEPLGPEGGPPGKGE	R	337.154	229.672	0.681	0.451
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	P	PPGPPGAGKEGK	G	0.021	0.018	0.874	0.451
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	G	PSGAAGPPGK	G	1.262	1.033	0.819	0.454
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	P	GAPGPPGAPGK	S	0.062	0.047	0.765	0.456
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	Q	GPTFPGK	G	0.006	0.004	0.654	0.457
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	V	GPPSGGLKGEFVDVPGQPR	G	195.422	118.764	0.608	0.457
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	E	RGPPGAPG	S	0.006	0.004	0.719	0.460
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	K	GPPGPPGPPGVTGMDGQPGKNGVPGQ	E	0.001	0.001	0.752	0.463
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	K	GDAGAPGAPGK	D	0.016	0.014	0.872	0.468
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	E	PGSPGPKR	G	0.001	0.001	0.810	0.470
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	D	PGGPPGPK	G	0.032	0.027	0.854	0.471
P07585	Decorin OS=Homo sapiens GN=DCN	N	KITEIK	D	0.024	0.008	0.348	0.473
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	S	PPGPKDGTSGHPGIPGPPGR	G	189.850	126.610	0.667	0.474
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	R	GENGSPGAPGAPGHPGPPVGP	A	0.035	0.027	0.779	0.476
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	K	GLTSPGSPG	P	0.004	0.002	0.643	0.476
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	F	PGANGEK	G	0.003	0.002	0.765	0.476
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	R	GANGAPGNDGAKDAGAPGAPGQSGAP	G	0.322	0.263	0.818	0.478
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	G	PPGTPGDDK	G	0.002	0.001	0.809	0.480
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	K	SGVAVGGLAGYPGAPGPPGPPGTPGSHGPPS	G	0.003	0.002	0.531	0.481
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	S	GAAGPPGK	G	0.032	0.021	0.637	0.483
P07585	Decorin OS=Homo sapiens GN=DCN	L	PEKMPK	T	0.050	0.032	0.640	0.484
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	E	KGEPGR	G	0.001	0.001	0.652	0.484
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	E	GPPGPPGAPGAPGADGQPGAK	G	4.000	2.379	0.595	0.485
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	E	PGEPGASGMPGR	G	0.002	0.001	0.472	0.491
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	A	QPADLLK	V	0.000	0.000	0.817	0.492
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	G	EPGPPGAPGAPGAPGADGQPGAKGANGAPGIAGAPGPFGR	G	152.262	121.483	0.798	0.493
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	D	RGDAGPK	G	0.000	0.000	0.487	0.494
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	R	GAPGAPGAAAGEPG	R	0.001	0.000	0.516	0.495
P16112	Aggrecan core protein OS=Homo sapiens GN=ACAN	A	PLGPSATPTASGDR	T	159.752	114.257	0.715	0.499
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	I	GNVNGAPGAK	G	0.003	0.003	0.831	0.501
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	S	ILTTVKAK	K	0.002	0.001	0.415	0.501
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	K	GAAGPPGPPGAAAGTGLQG	M	1.107	0.941	0.850	0.502
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	G	APGAPGSRGAPGQGR	G	0.554	0.471	0.850	0.502
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	P	GAPGLMGAR	G	2.755	2.269	0.824	0.504
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	R	DGLQGPVGLPAGPVGPPGEGDKGEIGE	P	0.725	0.602	0.830	0.504
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	G	APGKPPDGLR	G	0.120	0.104	0.872	0.505
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	G	EIEGPGKSK	G	0.376	0.313	0.832	0.505
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	G	SPGVSGPKDAGQPGK	G	0.037	0.029	0.794	0.505
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	G	AQLLPGPQGAIGPPGK	G	297.202	206.322	0.694	0.507
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	K	GDAGAPGAGK	D	0.000	0.000	0.443	0.509
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	K	GEPGPGADGVGPKDGP	R	1.624	1.306	0.804	0.509
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	L	GAPGPSGAR	G	0.006	0.004	0.772	0.513
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	K	GGQPPGQGP	I	15.394	12.723	0.827	0.514
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	K	GEMGPPGAPGAPGLMGARG	P	0.485	0.426	0.877	0.517
P49747	Cartilage oligomeric matrix protein OS=Homo sapiens GN=COMP	G	VACIQTESGAR	C	0.450	0.387	0.861	0.518
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	G	QPVMGFPKPKNDGAPGK	N	0.001	0.001	0.865	0.520
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	P	GIAGAPGPPGARGPSGPPGPPGPPGPK	G	0.016	0.010	0.587	0.523
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	Q	GEPGPPGQGNPQAQGLPQGAIGPPGK	G	104.732	93.079	0.889	0.528
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	R	GEPGPTGLPFPGERGPP	G	0.019	0.016	0.855	0.534
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	G	PSGAPGADGPPGPPGGINPVAUGEK	G	0.329	0.259	0.787	0.541



P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	K	GNEGPPGPPGAGSPGERGAGAAAGPIGPRGP	P	3.220	2.917	0.906	0.849
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	G	EPGANGLPGAAGER	G	0.000	0.000	0.905	0.852
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	R	GPAGNGPIGEGK	P	0.021	0.019	0.949	0.856
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	G	PPGPRGNR	G	0.090	0.079	0.873	0.857
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	G	PGADGVPKGDGPR	G	79.918	72.954	0.913	0.859
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	R	GSPGGPGAAGFPAGRLPGPPGNSGNPDPGPPSGSPG	K	0.321	0.307	0.956	0.865
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	K	FCHPELKSGEYVVDPN	Q	0.057	0.055	0.960	0.866
P16112	Aggrecan core protein OS=Homo sapiens GN=ACAN	P	QSPPLR	V	0.001	0.001	0.813	0.867
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	E	GIGGPRGK	G	0.000	0.000	0.843	0.867
P16112	Aggrecan core protein OS=Homo sapiens GN=ACAN	R	GISAVPSP	G	0.005	0.005	0.914	0.869
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	T	SGHPGPIGPPGR	G	0.042	0.040	0.946	0.870
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	R	GPPGSAGAPGKD	G	0.039	0.038	0.975	0.871
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	K	GEPGPPGAG	E	0.001	0.001	0.852	0.872
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	A	GEPGLPEGGPPGPK	G	0.003	0.003	0.945	0.872
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	P	SGPRGQPGVMGFPPGK	G	5.924	5.688	0.960	0.878
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	S	PGPMGPR	G	0.001	0.001	0.891	0.880
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	L	SGPKGK	G	0.001	0.001	0.956	0.894
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	A	GPPGAPGAPGAPVPGAGKSGDR	G	0.005	0.005	0.957	0.901
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	D	GVPKDGPR	G	0.001	0.001	0.906	0.902
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	G	AGPPGDEGK	G	0.004	0.004	0.976	0.903
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	K	GDTPPPQGLQLPGTGGPPGNGPKG	E	0.025	0.024	0.935	0.905
P16112	Aggrecan core protein OS=Homo sapiens GN=ACAN	L	PSATPTASGDR	T	6.327	5.888	0.931	0.906
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	G	TPGKPGPR	G	0.000	0.000	0.947	0.912
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	P	PGPAGAAGPAGNPGADGQPGAK	G	0.158	0.152	0.962	0.912
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	R	GETGPAGPPGAPGAPGVPVPGAGKSG	D	0.072	0.071	0.979	0.926
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	P	PGAGPPLAIGITGARGLAGPPGMPPR	G	5.918	5.769	0.975	0.928
P16112	Aggrecan core protein OS=Homo sapiens GN=ACAN	V	KDKDSSPVVR	T	0.149	0.142	0.956	0.929
P16112	Aggrecan core protein OS=Homo sapiens GN=ACAN	K	VSTAGDISGATPLVPGSVEVSSVSPESSETSA	P	0.584	0.574	0.984	0.937
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	K	DGEAGAQPAGPAGPAGERGEQG	P	0.008	0.008	0.986	0.941
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	L	QGPVGLPGPAGVPPGEDGDK	G	3.713	3.666	0.987	0.944
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	A	IGPPGPR	G	0.159	0.157	0.983	0.946
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	P	PGDDGPK	G	0.001	0.001	0.936	0.949
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	S	GPMGPRGPPGPK	N	0.006	0.006	0.968	0.951
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	A	IGPSGPAGK	D	0.157	0.155	0.985	0.952
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	R	GSPGPGAAGFPAGRLPGPP	G	0.077	0.076	0.986	0.957
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	K	QKQGEPAIIEPGML	I	3533.836	3438.668	0.973	0.968
P16112	Aggrecan core protein OS=Homo sapiens GN=ACAN	G	TPSSFPTVSLVDR	T	0.002	0.002	0.991	0.971
Q06828	Fibromodulin OS=Homo sapiens GN=FMOD	Y	SLRELHL	S	0.007	0.007	0.985	0.975
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	R	GETGPAGPPGAPGAPGAP	G	0.465	0.462	0.992	0.979
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	P	PGMPGPR	G	0.001	0.001	0.985	0.984
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	G	PIGPPGPR	G	0.000	0.000	0.988	0.985
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	P	GPSGPPGKR	G	0.002	0.002	0.988	0.986
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	K	VLCDVICDETCKNCPGAEVPEGECCPCPDGSE	S	0.151	0.150	0.998	0.994
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	R	GVGPPGAPGPRGANGAGPND	G	0.004	0.004	0.996	0.994
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	E	PGPPGAGAAGPAGNPGADGQPGAK	G	0.000	0.000	0.994	0.995
P02461	Collagen alpha-1(III) chain OS=Homo sapiens GN=COL3A1	R	GPPGAPAGANGAPLRGGAG	E	0.062	0.062	0.999	0.998
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	P	KGPPGPPGK	D	0.149	0.149	0.999	0.999
P20908	Collagen alpha-1(V) chain OS=Homo sapiens GN=COL5A1	R	GFPGPPGVLQGLPGPPGKGET	G	19.209	19.196	0.999	0.999
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	R	FGSLQGGPPGPPGSGE	Q	0.394	0.000	0.000	#DIV/0!
P02452	Collagen alpha-1(I) chain OS=Homo sapiens GN=COL1A1	D	AGAPGAPGQAGPLQGMPPGER	G	1.925	0.002	0.001	#DIV/0!

**Supplementary S3. Neopeptides in synovial fluid.** Neopeptides were identified using tandem mass spectrometry for matrix components aggrecan, biglycan, decorin, fibromodulin, cartilage oligomatrix protein and collagens. Neopeptide abundance was measured in low and high glucosinolate groups and fold change calculated. Neopeptides with higher abundance in the low glucosinolate group are shown. Neopeptide sequences, corresponding protein and accession identifiers, abundance, fold change and p-values are shown (OS: organism species, GN: gene name), Low glucosinolate n=8, high glucosinolate n= 9.

Gene symbol	Gene name	Cartilage			Fat		
		Fold Change	p-value	Adjusted p-value	Fold Change	p-value	Adjusted p-value
A2M	Alpha-2-Macroglobulin	1.12	0.523	0.983	0.85	0.276	0.9752
ADAMTS1	ADAM Metallopeptidase With Thrombospondin Type 1 Motif, 1	0.89	0.489	0.983	0.96	0.821	0.9911
ADIPOQ	Adiponectin, C1Q And Collagen Domain Containing	1.40	0.529	0.983	1.02	0.926	0.9911
BMP6	Bone Morphogenetic Protein 6	0.87	0.255	0.983	0.88	0.625	0.9752
BST2	Bone Marrow Stromal Cell Antigen 2	1.15	0.620	0.983	0.89	0.496	0.9752
CCL20	Chemokine (C-C Motif) Ligand 20	1.39	0.540	0.983	0.27	0.114	0.9752
CCL5	Chemokine (C-C Motif) Ligand 5	1.61	0.223	0.983	0.60	0.186	0.9752
CCL7	chemokine (C-C motif) ligand 7 (CCL7), mRNA.	0.36	0.059	0.9505	1.41	0.671	0.9752
CCL8	Chemokine (C-C Motif) Ligand 8	1.71	0.286	0.983	0.80	0.561	0.9752
CD274	CD274 Molecule	1.14	0.646	0.983	1.02	0.936	0.9911
COL1A2	Collagen, Type I, Alpha 2	0.93	0.836	0.983	1.15	0.668	0.9752
COL4A1	Collagen, Type IV, Alpha 1	1.22	0.643	0.983	1.13	0.669	0.9752
COL5A1	Collagen, Type V, Alpha 1	0.90	0.623	0.983	1.43	0.221	0.9752
COL6A1	Collagen, Type VI, Alpha 1	0.94	0.783	0.9981	1.33	0.231	0.9752
COMP	Cartilage Oligomeric Matrix Protein	0.97	0.820	0.9981	1.17	0.668	0.9752
CPXM1	Carboxypeptidase X (M14 Family), Member 1	1.89	0.512	0.983	2.06	0.445	0.9752
CTSD	Cathepsin D	0.93	0.522	0.983	0.82	0.494	0.9752
CXCL10	Chemokine (C-X-C Motif) Ligand 10	1.16	0.802	0.9981	0.33	0.030	0.9752
CXCL9	Chemokine (C-X-C Motif) Ligand 9	1.44	0.584	0.983	0.77	0.489	0.9752
EMILIN1	Elastin Microfibril Interfacer 1	0.81	0.210	0.983	1.24	0.473	0.9752
FAIM3	Fas Apoptotic Inhibitory Molecule 3	1.35	0.533	0.983	0.41	0.164	0.9752
FCAMR	Fc Receptor, IgA, IgM, High Affinity	1.41	0.687	0.9831	3.31	0.353	0.9752
FMOD	Fibromodulin	1.01	0.964	0.9981	1.09	0.583	0.9752
FN1	Fibronectin 1	1.16	0.294	0.983	0.75	0.666	0.9752
GBP2	Guanylate Binding Protein 2, Interferon-Inducible	0.87	0.192	0.983	0.99	0.883	0.9911
GBP3	Guanylate Binding Protein 3	1.05	0.806	0.9981	1.25	0.225	0.9752
GCLM	Glutamate-Cysteine Ligase, Modifier Subunit	0.77	0.128	0.983	1.02	0.928	0.9911
GDF11	Growth Differentiation Factor 11	0.94	0.814	0.9981	1.11	0.555	0.9752
GPX3	Glutathione Peroxidase 3	0.87	0.318	0.9505	1.11	0.419	0.9752
HABP2	Hyaluronan Binding Protein 2	0.69	0.251	0.9505	8.55	0.218	0.9752

HAPLN1	Hyaluronan And Proteoglycan Link Protein 1	0.99	0.937	0.9981	0.93	0.917	0.9911
HERC5	HECT And RLD Domain Containing E3 Ubiquitin Protein Ligase 5	0.67	0.009	0.9505	0.91	0.647	0.9752
HMOX1	Haem Oxygenase 1	1.34	0.339	0.983	1.15	0.658	0.9752
HSPG2	Heparan Sulfate Proteoglycan 2	1.08	0.526	0.983	1.06	0.710	0.9881
HTRA1	HtrA Serine Peptidase 1	0.93	0.599	0.983	0.97	0.968	0.9911
ICAM1	Intercellular Adhesion Molecule 1	0.99	0.967	0.9981	0.90	0.566	0.9752
IFI27	Interferon, Alpha-Inducible Protein 27	0.96	0.901	0.983	0.84	0.401	0.9752
IFI44	Interferon-Induced Protein 44	1.01	0.977	0.9981	0.83	0.317	0.9752
IFI44L	Interferon-Induced Protein 44-Like	0.91	0.758	0.9831	0.74	0.139	0.9752
IFI6	Interferon, Alpha-Inducible Protein 6	0.81	0.244	0.983	0.89	0.632	0.9752
IFI6	Interferon, Alpha-Inducible Protein 6	0.90	0.564	0.983	0.85	0.474	0.9752
IFIT2	Interferon-Induced Protein With Tetratricopeptide Repeats 2	1.20	0.421	0.983	0.84	0.108	0.9752
IGFBP4	Insulin-Like Growth Factor Binding Protein 4	1.61	0.029	0.9287	1.41	0.385	0.9752
IL15RA	Interleukin 15 Receptor, Alpha	0.98	0.909	0.9981	1.25	0.210	0.9752
IL1A	Interleukin 1, Alpha	1.67	0.117	0.983	0.85	0.515	0.9752
IL1B	Interleukin 1, Beta	3.48	0.014	0.6507	0.85	0.451	0.9752
IL36G	Interleukin 36, Gamma	0.63	0.421	0.983	1.06	0.940	0.9911
IL6	Interleukin 6	1.67	0.400	0.983	0.88	0.570	0.9752
IL8	Interleukin 8	0.97	0.948	0.9981	0.51	0.101	0.9752
IRF1	Interferon Regulatory Factor 1	0.88	0.499	0.983	0.93	0.555	0.9752
IRX3	Iroquois Homeobox 3	1.43	0.303	0.983	1.51	0.055	0.9752
ITGBL1	Integrin, Beta-Like 1 (With EGF-Like Repeat Domains)	0.97	0.893	0.9981	0.70	0.567	0.9752
ITIH3	Inter-Alpha-Trypsin Inhibitor Heavy Chain 3	0.76	0.613	0.983	0.58	0.253	0.9752
LCN2	Lipocalin 2	2.87	0.335	0.983	0.45	0.317	0.9752
LRP8	Low Density Lipoprotein Receptor-Related Protein 8, Apolipoprotein E Receptor	0.95	0.635	0.9831	0.99	0.981	0.9911
LUM	Lumican	0.78	0.049	0.983	1.00	0.991	0.9911
MARCKS	Myristoylated Alanine-Rich Protein Kinase C Substrate	1.23	0.531	0.983	1.01	0.953	0.9911
ME1	Malic Enzyme 1, NADP(+)-Dependent, Cytosolic	0.92	0.390	0.983	1.24	0.315	0.9752
MMP12	Matrix metalloproteinase 12	0.83	0.657	0.983	0.94	0.922	0.9911
MMP13	Matrix metalloproteinase 13	0.86	0.741	0.983	0.40	0.267	0.9752
MMP2	Matrix Metalloproteinase 2	0.97	0.950	0.9981	1.07	0.740	0.9911
MMP3	Matrix Metalloproteinase 3	0.99	0.969	0.9981	0.17	0.295	0.9752

NQO1	NAD(P)H Dehydrogenase, Quinone 1	1.00	0.985	0.9981	1.10	0.764	0.9911
OASL	2'-5'-Oligoadenylate Synthetase-Like	1.50	0.349	0.983	0.74	0.249	0.9752
OGN	Osteoglycin	0.84	0.185	0.983	1.03	0.951	0.9911
PARP14	Poly (ADP-Ribose) Polymerase Family, Member 14	1.00	0.990	0.9981	0.93	0.574	0.9752
PENK	Proenkephalin	0.94	0.908	0.9981	1.37	0.476	0.9752
PIM2	Pim-2 Proto-Oncogene, Serine/Threonine Kinase	1.05	0.707	0.9831	0.99	0.954	0.9911
PIR	Pirin (Iron-Binding Nuclear Protein)	0.97	0.841	0.9981	0.94	0.727	0.9911
POPDC3	Popeye Domain Containing 3	0.82	0.146	0.983	2.66	0.177	0.9752
PRG4	Proteoglycan 4	0.88	0.547	0.983	1.11	0.862	0.9911
PTX3	Pentraxin 3, Long	1.21	0.613	0.983	1.17	0.911	0.9911
RPL13A	Ribosomal Protein L13a	0.91	0.679	0.983	1.16	0.492	0.9752
S100A4	S100 Calcium Binding Protein A4	1.00	0.998	0.9981	1.16	0.508	0.9752
SAA4	Serum Amyloid A4, Constitutive	3.55	0.403	0.983	0.36	0.217	0.9752
SELE	Selectin E	1.04	0.964	0.9981	0.37	0.110	0.9752
SERPIND1	Serpin Peptidase Inhibitor, Clade D (Heparin Cofactor), Member 1	0.78	0.204	0.983	1.13	0.855	0.9911
SFRP1	Secreted Frizzled-Related Protein 1	2.64	0.061	0.9505	0.92	0.685	0.9811
SLC15A3	Solute Carrier Family 15 (Oligopeptide Transporter), Member 3	1.08	0.666	0.983	0.87	0.499	0.9752
SLC40A1	Solute Carrier Family 40 (Iron-Regulated Transporter), Member 1	0.89	0.325	0.983	1.04	0.835	0.9911
SOD3	Superoxide Dismutase 3, Extracellular	1.10	0.453	0.983	0.97	0.874	0.9911
TGFBI	Transforming Growth Factor, Beta-Induced, 68kDa	0.80	0.424	0.9505	1.00	0.991	0.9911
THBS3	Thrombospondin 3	0.87	0.318	0.983	1.15	0.589	0.9752
THBS4	Thrombospondin 4	0.91	0.568	0.9981	0.96	0.925	0.9911
TNFAIP6	Tumor Necrosis Factor, Alpha-Induced Protein 6	0.67	0.099	0.6507	0.71	0.551	0.9752
TNFRSF4	Tumor Necrosis Factor Receptor Superfamily, Member 4	0.90	0.450	0.983	1.13	0.594	0.9752
TNFSF10	Tumor Necrosis Factor (Ligand) Superfamily, Member 10	0.95	0.701	0.9981	0.94	0.701	0.9881
TNFSF11	Tumor Necrosis Factor (Ligand) Superfamily, Member 11	0.85	0.429	0.983	0.52	0.416	0.9752
TRAF1	TNF Receptor-Associated Factor 1	1.09	0.597	0.983	0.91	0.507	0.9752
TSG-6	TNF-Stimulated Gene 6 Protein (TNFAIP6)	0.66	0.094	0.9505	0.68	0.511	0.9752
TXNRD1	Thioredoxin Reductase 1	0.86	0.099	0.9981	1.11	0.316	0.9752
UBD	Ubiquitin D	1.57	0.498	0.983	0.85	0.577	0.9752
UBE2L6	Ubiquitin-Conjugating Enzyme E2L 6	1.04	0.828	0.9981	1.01	0.954	0.9911

**Supplementary S4. Gene expression in cartilage and fat tissues.** Gene expression was measured using a custom Taqman Low Density Array (TLDA), analysed using DataAsist Software v3.01 and normalised to ribosomal 18S. Data were adjusted using a false discovery rate of 5%. Gene names and symbols are given with fold change (calculated as high/low glucosinolate) and p-values. Cartilage tissue: Low glucosinolate, n=20, high gluosinolate n=17. Fat tissue: Low glucosinolate, n=13, high gluosinolate n=10.

Nutrient	Diet		p-value
	Low glucosinolate (mean $\pm$ 95% CI)	High glucosinolate (mean $\pm$ 95% CI)	
Energy kcal (kcal/d)	1805.35 (1600 to 2011)	2128.00 (1856 to 2400)	0.20
Energy kJ (kJ/d)	7595.10 (6732 to 8458)	8940.76 (7806 to 10076)	0.20
Protein (g/d)	74.52 (66.48 to 82.56)	86.85 (74.75 to 98.95)	0.23
Carbohydrate (g/d)	215.85 (187 to 244)	258.71 (225 to 292)	0.20
Sugars (g/d)	97.11 (81.74 to 112.50)	117.56 (93.09 to 142)	0.30
Starch (g/d)	110.48 (94.37 to 126.60)	133.49 (113.50 to 153.5)	0.23
Total Fat (g/d)	69.57 (59.95 to 79.19)	79.19 (63.83 to 94.55)	0.39
Saturates (g/d)	25.10 (21 to 29.19)	30.51 (23.34 to 37.68)	0.30
Monounsaturates (g/d)	23.95 (20.54 to 27.35)	25.79 (21.01 to 30.58)	0.64
Polyunsaturates (g/d)	11.14 (9.42 to 12.86)	11.31 (9.20 to 13.41)	0.94
Fibre AOAC (g)	19.19 (17.28 to 21.09)	23.02 (20.02 to 26.01)	0.20
NMES (g/d)	49.79 (37.58 to 62.01)	63.06 (36.24 to 89.88)	0.48
Alcohol (g/d)	8.85 (2.56 to 15.13)	12.76 (2.56 to 22.96)	0.64
Sodium (mg/d)	2720.05 (1982 to 3458)	6486.65 (-548.6 to 13522)	0.37
Potassium (mg/d)	3429.95 (2986 to 3874)	4488.41 (3304 to 5673)	0.23
Calcium (mg/d)	908.10 (774.5 to 1042)	1063.47 (862.9 to 1264)	0.30
Magnesium (mg)	301.00 (263.5 to 338.50)	406.76 (297.8 to 515.7)	0.20
Phosphorus (mg/d)	1324.25 (1185 to 1464)	1598.47 (1356 to 1841)	0.20
Iron (mg/d)	11.89 (10.29 to 13.49)	14.00 (1.27 to 16.72)	0.30
Copper (mg/d)	1.41 (1.07 to 1.75)	2.17 (0.99 to 3.35)	0.30
Zinc (mg/d)	8.56 (7.54 to 9.60)	10.96 (8.64 to 13.27)	0.20
Chloride (mg/d)	3732.95 (3094 to 4372)	4998.76 (3153 to 6844)	0.30
Manganese (mg/d)	3.84 (3.18 to 4.51)	5.30 (4.21 to 6.40)	0.20
Selenium ( $\mu$ g/d)	39.85 (34.7 to 45)	42.18 (31.83 to 52.52)	0.78
Iodine ( $\mu$ g/d)	152.05 (129 to 175)	195.82 (142.8 to 248.90)	0.25
Retinol ( $\mu$ g/d)	510.50 (223.7 to 797.30)	1154.06 (773.1 to 1535)	0.13
Carotene ( $\mu$ g/d)	3493.15 (2827 to 4159)	3306.18 (2003 to 4609)	0.87
Vitamin D ( $\mu$ g/d)	3.04 (2.32 to 3.80)	3.02 (2.25 to 3.80)	0.98
Vitamin E (mg/d)	6.86 (5.44 to 8.27)	7.66 (6.42 to 8.90)	0.55
Thiamin (mg/d)	1.64 (1.45 to 1.84)	1.73 (1.51 to 1.96)	0.64
Riboflavin (mg/d)	2.01 (1.68 to 2.34)	2.06 (1.70 to 2.43)	0.88
Niacin (mg/d)	19.95 (17.03 to 22.88)	20.63 (17.00 to 24.27)	0.87
Potential Niacin (mg/d)	15.11 (13.43 to 16.80)	17.13 (14.52 to 19.73)	0.30
Vitamin B6 (mg/d)	1.91 (1.66 to 2.15)	2.06 $\pm$ 0.66	0.61
Vitamin B12 (mg/d)	5.54 (4.50 to 6.58)	6.76 (4.86 to 8.66)	0.37
Folate ( $\mu$ g/d)	274.90 (234.7 to 315.1)	328.65 (273.8 to 383.5)	0.25



Pantothenate (mg/d)	5.87 (5.00 to 6.74)	5.91 (4.96 to 6.87)	0.97
Biotin ( $\mu\text{g}/\text{d}$ )	41.27 (32.90 to 49.64)	59.42 (38.02, 80.82)	0.24
Vitamin C (mg/d)	92.85 (74.67 to 111)	196.88 (166.2, 227.6)	<i>9.96E-06</i>
Nutrient	Low glucosinolate (mean $\pm$ 95% CI)	High glucosinolate (mean $\pm$ 95% CI)	p-value

**Supplementary S5. Self-reported nutritional intakes.** Patients recorded their nutritional intakes for 7 days during intervention. Mean intakes  $\pm$  95% confidence intervals are shown with adjusted p-values for 1% false discovery rate. Low glucosinolate n=20, high glucosinolate n=17. Significance level was  $p < 0.05$ .

Copy number	Low glucosinolate n, (%)	High glucosinolate n, (%)	Total n, (%)
<i>GSTT1</i>			
0	2 (5.4)	1 (2.7)	3 (8.1)
1	0 (0)	0 (0)	0 (0)
2	14 (35.1)	13 (37.8)	27 (73)
3	0 (0)	0 (0)	0 (0)
4	4 (10.8)	3 (8.1)	7 (18.9)
<i>GSTM1</i>			
0	7 (18.9)	10 (27.0)	17 (45.9)
1	0 (0)	0 (0)	0 (0)
2	11 (29.7)	7 (18.9)	18 (48.6)
3	0 (0)	0 (0)	0 (0)
4	2 (5.4)	0 (0)	2 (5.4)
<i>GSTP1</i>			
0	0 (0)	0 (0)	0 (0)
1	0 (0)	0 (0)	0 (0)
2	10 (27.0)	8 (21.6)	18 (48.6)
3	3 (8.1)	5 (13.5)	7 (21.6)
4	6 (16.2)	4 (10.8)	10 (27)
5	1 (2.7)	0 (0)	1 (2.7)

**Supplementary S6. Predicted GST copy numbers.** Genomic DNA was extracted from plasma and the copy numbers were predicted for glutathione S-transferase variants P1, M1 and T1 (GSTP1, GSTM1, GSTT1). Taqman® Copy Number Assays (Life Technologies) were used and the copy numbers were predicted using Copy Caller® software (Life Technologies). Low glucosinolate n=20, high glucosinolate n=17.