Table 3. Mouse and human syntenic regions of MT-MC1-regulated genes

Gene	Chromosome	Position (Mb)	Human Syntenic Region	Associated Human Cancers
Cxcr4	1	128.40	2q21	Adeno. ca, ALL, Lymphoma, Sq. cell ca
Daf2	1	130.27	1q22	Adeno. ca, ALL, Bone tumors, Lymphoma, Sq. cell ca
Daf1	1	130.32	1q22	Adeno. ca, ALL, Bone tumors, Lymphoma, Sq. cell ca
Adam8	7	127.64	10q26	Adeno. ca, ALL, AML, CLL, Atyp. CML, CML, Lymphoma, Multiple myeloma
Lsp1	7	131.18	11p15	Adeno. ca, ALL, AML, Bone tumors, Brain tumors, Lymphoma, Melanoma, Myeloma
Gp1ba	11	70.25	17pter-p12	Adeno. ca, ALL, AML, Bone tumors, CLL, CML, Multiple myeloma
Spag7	11	70.26	17p13	Adeno. ca, ALL, AML, Atyp. CML, Bone tumors, CML, Lymphoma, Myeloma
Ccl9	11	83.19	17q11	AML, APML, CML
Ccl6	11	83.19	17q11	AML, APML, CML
Anxa1	19	19.66	9q12-21	Adeno. ca, ALL, AML, Brain tumors, Lymphoma, Multiple myeloma, Sq. cell ca
Aldh1a1	19	19.98	9q21	ALL, AML
Piga	X	154.40	Xp22	Adeno. ca, ALL, AML, Lymphoma
Hccs	X	159.43	Xp22	Adeno. ca, ALL, AML, Lymphoma
Uty	Y	45.10		
Eif2s3y	Y	45.30	Yq11	
Ddx3y	Y	45.60		

MT-MC1-regulated genes often cluster to common chromosomal loci and are syntenic with cancer-associated human loci. Chromosomal assignments for all of the genes listed in Table 2 were determined using the Entrez Gene database (http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?db=gene). Of the 47 genes listed, 16 localized to six distinct chromosomal clusters, corresponding to 11 syntenic human regions. Searches of the Mitelman database (http://cgap.nci.nih.gov/ Chromosomes /Mitelman) showed that 10 of these 11 regions are commonly perturbed in a variety of cancers, most strikingly acute leukemias, lymphomas, and carcinomas.