

Supplementary material

**ZFAT IS A CRITICAL MOLECULE FOR CELL SURVIVAL IN MOUSE EMBRYONIC FIBROBLASTS**

KEIKO DOI<sup>1,2</sup>, TAKAHIRO FUJIMOTO<sup>1,2</sup>, MIDORI KOYANAGI<sup>1,2</sup>,  
 TOSHIYUKI TSUNODA<sup>1,2</sup>, YOKO TANAKA<sup>1,2</sup>, YASUHIRO YOSHIDA<sup>1</sup>,  
 YASUO TAKASHIMA<sup>2</sup>, MASAHIDE KUROKI<sup>2</sup>, TAKEHIKO SASAZUKI<sup>3</sup>  
 and SENJI SHIRASAWA<sup>1,2\*</sup>

<sup>1</sup>Department of Cell Biology, Faculty of Medicine, Fukuoka University,  
 7-45-1 Nanakuma, Jonan-ku, Fukuoka 814-0180, Japan, <sup>2</sup>Center for Advanced  
 Molecular Medicine, Fukuoka University, Fukuoka 814-0180, Japan,  
<sup>3</sup>Kyushu University, Fukuoka 812-8581, Japan

Suppl. Tab. 1. Primers used for quantitative RT-PCR.

MEFs		MOLT-4	
Primer set ID		Primer set ID	
Adam17	MA091218	ADAM17	HA105199
Akap13	MA088052	AKAP13	HA122103
Bcl2	MA027977	BCL2	HA032558
Bcl6	MA027982	BCL6	HA090378
Cadm1	MA073635	CADM1	HA110475
Cxcl3	MA049853	CXCL3	HA129441
Depdc6	MA094585	DEPDC6	HA052293
Flt1	MA082484	FLT1	HA126180
Gfra1	MA059974	GFRA1	HA139830
Il6st	MA095176	IL6ST	HA121180
Jag1	MA031629	JAG1	HA073121
Mid1	MA082931	MID1	HA118404
Mxd1	MA087797	MXD1	HA104745
Nek1	MA072572	NEK1	HA128746
Nf2	MA072972	NF2	HA113811
Perp	MA080089	PERP	HA139829

MEFs		MOLT-4	
Primer set ID		Primer set ID	
Pmp22	MA026714	PMP22	HA032054
Prrx1	MA083711	PRRX1	HA111437
Tmeff2	MA033138	TMEFF2	HA047413
Vegfa	MA069706	VEGFA	HA078904
Zfhx3	MA082442	ZFHX3	HA121221
Gapdh	MA050371	ACTB	HA067803

Suppl. Tab. 2. The concordant relationship between the expression data obtained from microarray analysis and that from quantitative RT-PCR in MEFs and MOLT-4 cells transfected with ZFAT-siRNA.

Gene symbol (NetAffx)	Gene title (NetAffx)	Probe ID	MEFs_siZFAT		MOLT-4_siZFAT		
			Microarray	qRT-PCR	Microarray	qRT-PCR	
			Fold change mZFAT-siRNA/control-siRNA	Fold change mZFAT-siRNA/control-siRNA	Fold change hZFAT-siRNA/control-siRNA	Fold change hZFAT-siRNA/control-siRNA	
Cell death							
Bcl2	B-cell leukemia/lymphoma 2	1437122_at	-2.22	-2.34	203685_at	-2.12	-2.53
		1457687_at	-1.74				
		1422938_at	-1.44				
Gfra1	glial cell line derived neurotrophic factor family receptor alpha 1	1450440_at	-3.97	-2.04	227550_at	-1.62	-1.55
		1439015_at	-1.81				
Nek1	NIMA (never in mitosis gene a)-related expressed kinase 1, mRNA (cDNA clone MGC:189932 IMAGE:9088119)	1438592_at	-1.94	-1.77	216213_at	-1.65	-1.04
		1434267_at	-1.78				
Perp	PERP, TP53 apoptosis effector	1416271_at	-3.00	-2.90	217744_s_at	-1.50	-0.93
Cellular growth and proliferation							
Adam17	a disintegrin and metallo-peptidase domain 17	1421857_at	-1.97	-3.23	237897_at	-1.43	-0.89
		1421858_at	-1.97				
		1421859_at	-2.19				
Akap13	A kinase (PRKA) anchor protein	131430185_at	-1.30	-1.09	232188_at	-1.39	-1.09
Cadm1	cell adhesion molecule 1	1417377_at	-1.54	-1.25	209030_s_at	-1.39	-1.62
		1417376_a_at	-1.35				
Depdc6	DEP domain containing 6	1451348_at	-2.29	-2.20	218858_at	-2.05	-1.70
		1428622_at	-2.26				
		1443579_s_at	-1.84				
		1453571_at	-1.35				

Gene symbol (NetAffx)	Gene title (NetAffx)	MEFs_siZFAT			MOLT-4_siZFAT		
		Probe ID	qRT-PCR		Probe ID	qRT-PCR	
			Fold change mZFAT - siRNA/ control- siRNA	mZFAT- siRNA/ control- siRNA		Fold change hZFAT- siRNA/ control- siRNA	hZFAT- siRNA/ control- siRNA
Jag1	jagged 1	1421106_at	-1.47	-1.11	209099_x_at	-1.53	-0.60
		1434070_at	-1.46				
Mxd1	MAX dimerization protein 1	1434830_at	-2.60	-1.00	228846_at	-1.36	-0.78
Mid1	midline 1	1438239_at	-1.30	-0.84	210694_s_at	-1.39	-0.98
Nf2	neurofibromatosis 2	1450382_at	-1.58	-1.63	238618_at	-1.35	-1.00
		1421820_a_at	-1.47				
Pmp22	peripheral myelin protein 22	1417133_at	-2.91	-3.03	210139_s_at	-1.32	-1.62
Prrx1	paired related homeobox 1	1439774_at	-1.66	-1.58	205991_s_at	-1.33	N.D.
		1425528_at	-1.41				
		1425526_a_at	-1.33				
		1425527_at	-1.26				
Tmeff2	transmembrane protein with EGF-like and two follistatin-like domains 2	1441598_at	-1.74	-1.34	224321_at	-1.46	-1.22
Vegfa	vascular endothelial growth factor A	1420909_at	-1.27	-1.26	210512_s_at	-1.31	-1.01
					210513_s_at	-1.76	
Zfhx3	zinc finger homeobox 3	1453267_at	-1.52	-1.32	226137_at	-1.47	-0.83
		1429725_at	-1.45				
		1449947_s_at	-1.39				
		1420650_at	-1.38				
		1420649_at	-1.38				
Immunological disease							
Bcl6	B-cell leukemia/lymphoma 6	1421818_at	-1.25	-1.44	203140_at	-1.85	-1.28
Cxcl3	chemokine (C-X-C motif) ligand 3	1438148_at	-1.56	-3.58	207850_at	-1.61	-1.14
Flt1	FMS-like tyrosine kinase 1	1451756_at	-1.62	-1.30	232809_s_at	-1.31	-1.37
		1454037_a_at	-1.33				
		1440926_at	-1.31				
Il6st	interleukin 6 signal transducer	1421239_at	-1.50	-1.40	204864_s_at	-1.69	-1.70
		1460295_s_at	-1.37				
		1452843_at	-1.37				