

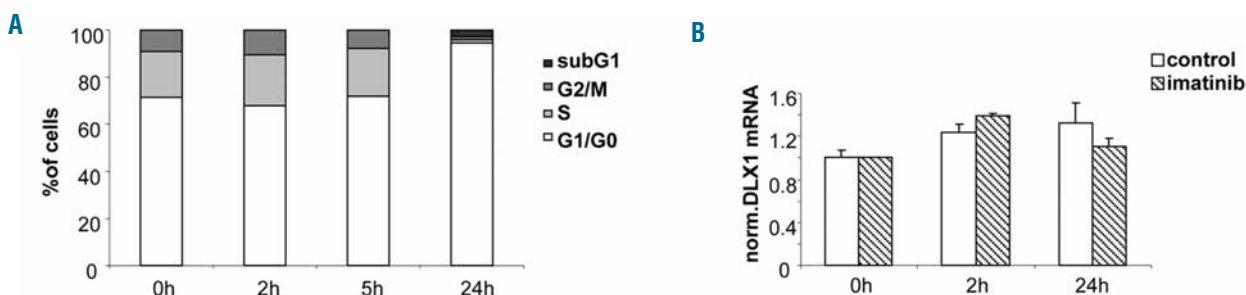
Up-regulation of homeodomain genes, *DLX1* and *DLX2*, by *FLT3* signaling

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Citation: Starkova J, Gadgil S, Hua Qiu Y, Zhang N, Hermanova I, Kornblau SM, and Drabkin HA. Up-regulation of homeodomain genes, *DLX1* and *DLX2*, by *FLT3* signaling. *Haematologica* 2011;96(6):820-828. doi:10.3324/haematol.2010.031179

Online Supplementary Figure S1. Specificity and non-toxicity of PKC412 in MV4;11 cells (A) Results from flow cytometry analysis are shown as a percentage of cells in subG1, G1-G0, S and G2-M phases of the cell cycle after 0, 2, 5 and 24 h treatment of MV4;11 cells with PKC412. (B) Graph shows fold-change of *DLX1* gene expression in MV4;11 cells after imatinib treatment.



Online Supplementary Figure S2. AP1-binding site in the *DLX1* promoter.

————— promoter —————

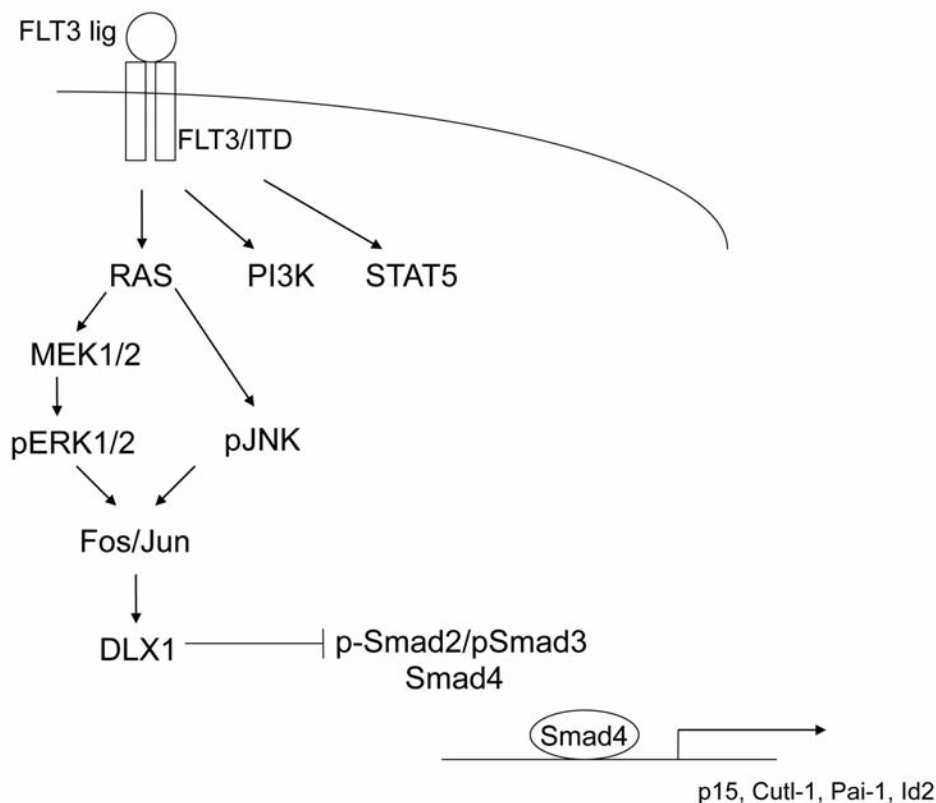
AGCGGAGCCCGAGCGCCTCGGACCAATCCCCAGTGATTATGCAAGACAGCGGACCAAT
TCGCCTCGGGCTCGCGGAGCCTGGTTAGGGGTCCTAATAACGTTCTGTGCCTGGTTA

————— promoter ————— AP-1b.site ————— Exon 1 —————

CAGCTCCGCCAGCTCATGAATATTTATGACCTTCGCT**GAGTCAA**AGCTTTGAACCGAGT
GTGCAGGGCGRRCGAGTACTTATAATACTGGAAGCGACTCAGTTTCGAACTTGGCTCA

————— CDC start —————

TTGGGGAGCTCAGCAGCATCA**TG**CTTAGACTTTTCAAAGAGACAACTCCATTTTCTTAT
AACCCCTCGAGTCGTCGTAGTACGAATCTGAAAAGTTTCTCTGTTTGAGGTAAAAGAATA



Online Supplementary Table S1. Primes sequences.

p15 fw 5' - GGCAGTCGATGCGTTCACTC

p15 rev 5' - TGCCATGCGCTCAAACAAAG

CUTL-1 fw 5' - CAGCGCCTGCACGATATTG

CUTL-1 rev 5' - AGAGCTATGGTTTCGGCTTGG

PAI-1 fw 5' - CCACAGACGCGATCTTCGTC

PAI-1 rev 5' - GTCCACTTGCTTGACCGTGC

p21 fw 5' - CAGCAGAGGAAGACCATGTGG

p21 rev 5' - GCCGTTTTTCGACCCTGAGAG

Id2 fw 5' - CTGACCACCCTCAACACG

Id2 rev 5' - CTTGTCCCTCTGTGAAATGG

Online Supplementary Table S2. $\Delta\Delta Ct$ values of normalized HOX gene expression in MV4; II cells after PKC412 treatment.

	PKC412 (0.1 μ M)			
	0h	24h	0h	24h
HoxA1	11.69	11.715	Hox C5	ND
HoxA2	13.78	11.7	Hox C6	9.84
HoxA3	13.94	12.06	Hox C8	ND
Hox A4	10.98	10.47	Hox C9	10.95
HOXA5	11.88	10.91	Hox C10	11.27
HOXA6	12.47	13.06	Hox D3	ND
HOXA7	ND	ND	Hox D4	ND
HOXA9	6.05	5.19	Hox D8	ND
Hox A10	5.81	5.49	Hox D9	ND
Hox A11	ND	ND	Hox D10	ND
Hox A13	ND	ND	Hox D13	ND
Hox B2	ND	ND	PBX2	5.83
Hox B3	8.58	6.95	PBX3	6.2
Hox B4	7.52	6.5225	Meis1	5.01
Hox B5	12.79	10.38	Meis2	8.9
Hox B6	6.14	6.145	DLX1	5.28
Hox B7	11.48	10.36	DLX2	10.26
Hox B8	ND	ND	EN1	ND
Hox B9	ND	ND	DLX6	ND
Hox B13	ND	ND	GBX2	ND
Hox C4	ND	ND		

Online Supplementary Table S3. Characterization of AML patients.

Patient	Diagnosis	FIt3 ITD	FIt3 D835	PML/RARa	AML1/ETO	CBFB/MYH11	Other	Blast count
M1	M4	+	-	-	-	-	-	87%
M53	M2	+	-	-	-	-	-	61%
M60	M4	+	-	-	-	-	-	67%
M73	M2	+	-	-	-	-	-	47%
M81	M3	+	-	+	-	-	-	88%
M82	M1	+	-	-	-	-	-	85%
M86	M3	+	-	+	-	-	-	73%
M312	M4	+	-	-	-	-	-	90%
M412	M4	+	-	-	-	-	-	93%
M16	M2	-	-	-	-	-	-	65%
M29	M2	-	-	-	-	-	-	68%
M36	M4	-	-	-	-	-	-	90%
M38	M2	-	-	-	-	-	-	37%
M87	M0	-	-	-	-	-	-	73%
M212	M4	-	-	-	-	-	-	20%
M281	M0	-	-	-	-	-	-	42%
M336	M5	-	-	-	-	-	-	80%
M337	M0	-	-	-	-	-	-	79