Molecular characteristics of CTA056, a novel Itk inhibitor which selectively targets malignant T cells and modulates oncomirs

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Supplemental Figure 1

A

Induction of tumor suppressive MiRs and decrease of oncogenic MiRs in Jurkat cells following treatment with CTA056

Tumor suppressive MicroRNAs	Fold change	Relation to cancer	References
hsa-miR-135a*	285.3	Downregulation of JAK2	Navarro et al., 2009
hsa-miR-1224-5p	112.9	Downregulation of TNFα	Niu et al., 2011
hsa-miR-1226*	66.9	Downregulation of mucin1	Jin et al., 2010
hsa-miR-487b	59.4	Downregulated in high risk neuroblastoma	Gattolliat et al., 2011
hsa-miR-520b	57.1	Inhibition of MEKK2 and IL-8	Hu et al., 2011 Zhang et al., 2012
hsa-miR-365*	28.8	Downregulation of BCL2	Nie et al., 2012
hsa-miR-195*	27.0	Downregulation of BCL2	Chen et al., 2011
hsa-miR-601	26.7	Inhibition of NFkB	Ohdaira et al., 2009
hsa-miR-370	26.0	Downregulation of TGFβ-RII	Lo et al., 2012
hsa-miR-198	25.9	Inhibition of HGF/c-MET	Tan et al., 2011
hsa-miR-622	14.9	Inhibition of k-RAS	Han et al., 2012
hsa-miR-623	14.1	Upregulated in drug sensitive gastric cancer cells	Belian et al., 2010
hsa-let-7d*	11.5	Downregulation of KRAS	Yu et al., 2011 Jiao et al., 2012
hsa-miR-630	10.7	Upregulated by NGX6	Wang et al., 2010
hsa-miR-150*	7.8	Downregulation of NOTCH3	Ghisi et al., 2011
hsa-miR-1246	5.9	Upregulated by p53	Zhang et al., 2011
hsa-miR-494	4.3	Downregulation of KIT	Kim et al., 2011
hsa-miR-1915	2.5	Inhibition of BCL2	Xu et al., 2011
hsa-miR-874	2.5	Downregulation of PPP1CA	Nohata et al., 2011
hsa-miR-2861	2.2	Downregulation of HDAC5	Li et al., 2009
Oncogenic MicroRNAs	**Fold change**	**Relation to cancer**	**References**
hsa-miR-142-3p	-2.2	Downregulation of cAMP/ PKA and GRα	Lv et al., 2011
hsa-miR-93	-2.2	Downregulation of p53	Yeung et al., 2008
hsa-miR-191*	-2.3	Downregulation of TIMP3	He et al., 2011
hsa-miR-30e*	-2.5	Downregulation of IκBα	Jiang et al., 2012
hsa-miR-744	-3.3	Upregulation of Cyclin B1	Huang et al., 2012
hsa-miR-15b*	-37.8	Induced by E2F	Myklebust et al., 2011
hsa-miR-450a	-68.5	Upregulated in EMT	Castilla et al., 2011
hsa-miR-378*	-69.7	Mediates cMyc activity, inhibits TOB2	Feng et al., 2011
hsa-miR-421	-76.2	Downregulation of ATM	Hu et al., 2010

B

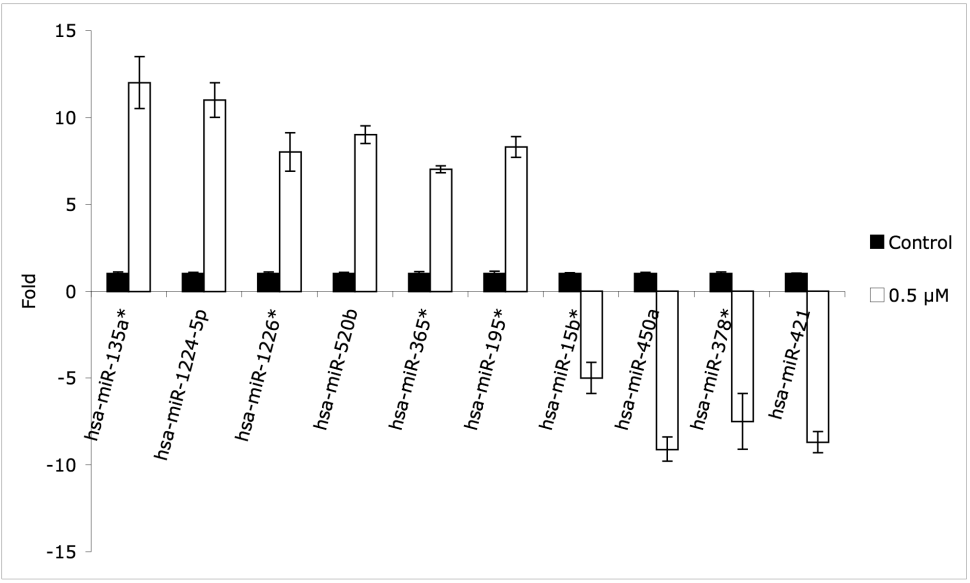

Figure legend: Jurkat cells were treated with 0.5 μM CTA056 for 8h. RNA was isolated and miR profile was examined using miR array. The fold change between treatment and control was indicated. The function of the miRs was obtained through Pubmed study (A). The miRs with the most significant changes from miR array were further confirmed using real-time PCR (B). For up regulation, fold = treatment/control; for down regulation, fold = control/treatment. Columns, mean; bars, standard deviation; n=3.

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