Table S1. Biochemical and cellular potency of encorafenib, dabrafenib, and vemurafenib in biochemical and cell-based assays. Purified BRAF V600E kinase domain was used in the biochemical experiments, using kinase-dead MEK1 as a substrate and a phosphorylated MEK1 (Ser217/221) alpha-screen readout. A375 cells were incubated with inhibitors for 3 hours to determine the phosphorylated ERK (pERK) half maximal effective concentration (EC_{50}) and 72 hours to determine the proliferation EC_{50}.

Inhibitor	Biochemical		A375 Cells		
	BRAF V600E IC_{50}, μM	**Dissociation $T_{1/2}$, h**	**pERK EC_{50}, μM**	**Proliferation EC_{50}, μM**	**Fold Change pERK EC_{50} 3 Hours After Washout**
Encorafenib	0.0004	> 30	0.003	0.004	2
Dabrafenib	0.00007	2	0.002	0.017	14
Vemurafenib	0.0007	0.5	0.017	0.060	23

EC_{50}, half maximal effective concentration; $T_{1/2}$, half-life.