

Supplementary Information (PDF)

A screening based approach to circumvent tumor microenvironment-driven intrinsic resistance to BCR-ABL+ inhibitors in Ph+ acute lymphoblastic leukemia

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This Supplementary Information (PDF) section comprises of table of contents; materials and methods for FACS assessment of viability; FACS assessment of cell cycle percentages; drug/cytokine washout and cytokine recovery studies; dasatinib re-challenge studies; detailed description of chemical library screened; HT drug screens - data processing, quality control and hit scoring criteria; cluster analysis of hits using therapeutic drug classes; Supplementary Figures S1-S11 with legends; Supplementary Table 1 and Supplementary References.

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Production and culture of murine leukemia initiating cells (LICs)

Replication-defective mouse stem cell virus (MSCV) retroviral vectors co-expressing either the wild-type (WT) allele of human p185^{BCR-ABL} or mutant BCR-ABL alleles p185^{T315I} or p185^{F317L}, and either green fluorescent protein (GFP) or luciferase, were packaged into replication-incompetent ecotropic virions[17,18,22]. Whole bone marrow cell suspensions from *Arf*^{-/-} young adult mice were transduced to produce *Arf*^{-/-} p185+ pre-B LICs [17,22]. After initial establishment on autologous stromal cell layers over 7 days, transformed pre-B cells were briefly expanded in the absence of a stromal layer for 2 days in liquid culture in BCM10 media (RPMI1640 supplemented with 10% Hyclone fetal calf serum, 4 mM glutamine, 100 Units/mL penicillin, 100 µg/mL streptomycin, and 55 µM beta-mercaptoethanol[18]), and cryopreserved. Prior to use in any assays, *Arf*^{-/-} p185^{WT} and *Arf*^{-/-} p185^{T315I} pre-B cells (BCR-ABL^{WT} LICs and BCR-ABL^{T315I} LICs, respectively) were thawed and allowed to recover and expand exponentially in BCM10 for 3 days.

***In vivo* adoptive leukemia transfer Ph+ ALL model**

Mice were housed in an American Association of Laboratory Animal Care (AALAC)–accredited facility and treated on Institutional Animal Care and Use Committee (IACUC)–approved protocols in accordance with NIH guidelines. Adoptive cell transfers were performed by injecting LICs into tail veins of healthy, non-conditioned, immune-competent 10- to 12-week-old IL-7^{+/+} or IL-7^{-/-} C57Bl/6J mice (Jackson Labs, Bar Harbor, ME). Animals were observed daily and sacrificed when moribund (dehydration, ruffled fur, poor mobility, respiratory distress). Survival curves were generated using GraphPad Prism Version 5.0 (La Jolla, CA). The Mantel-Cox test was applied to pairwise comparisons of survival data.

FACS assessment of viability

Viability of LICs was estimated after counterstaining approximately 5×10^5 LICs (in 0.5 mL volume) with 35 μ L of a propidium iodide (PI) solution (0.25 mg/mL in PBS). The percentage of viable cells was calculated by electronic gating on PI-negative cells on PI versus forward scatter dot plots, with forward scatter signals consistent with LICs, and comparison of this number with total cell number. Data were collected and analyzed on a BD Biosciences LSR II flow cytometer (San Jose, CA), using BD Biosciences FACS DiVa software.

FACS assessment of cell cycle percentages

For determination of percentages in cell cycle phases, 5×10^5 LICs were centrifuged, washed once with PBS, recentrifuged, and cell pellets were resuspended in 0.5 mL PI staining solution (0.05 mg/mL PI, 0.1% sodium citrate, 0.1% Triton X100), which lysed the cells and stained nuclear DNA with PI. Samples were then treated with DNase-free RNase (0.2 mg/mL in 10 M Tris-HCl/15 mM NaCl, pH 7.5) for 30 min at room temperature, filtered, and analyzed for red fluorescence from a PI-labeled DNA on BD Biosciences FACS Calibur flow cytometer (San Jose, CA) by using BD Biosciences CellQuest Pro software. The percentages of cells within each cell cycle phase were computed using the computer program ModFit (Verity Software House, Topsham, ME). **Drug/cytokine washout and cytokine recovery studies**

For washout studies, BCR-ABL^{WT} LICs were diluted to a density of 1×10^5 LICs/mL in BCM-10 containing no or 5 mg/mL IL7, and treatment with either dasatinib or 0.1% DMSO by volume (non-drug treated controls) was initiated at time 0 h in triplicate 100 mm petri dishes. Daily monitoring for expected drug-induced changes was performed by naked-eye microscopy from 0 to 72 h. At the 72 h time point, after harvesting under identical conditions, total LIC density and viability percentage for all samples were determined using Beckman Coulter Vi-cell (trypan

blue) in triplicates. Each sample was spun down in 50 mL BD Falcon™ tubes; the supernatant was discarded and LIC pellet resuspended in freshly prepared BCM-10 (not containing any cytokine or drug). This washing step was repeated 4 times to ensure complete removal of the drug and/or cytokine. After the last wash, each pellet was resuspended to 1×10^6 total LICs per mL master stocks. Aliquots from master stocks were taken for (i) flow assessment of viability and cell cycle percentages (as described above); (ii) manual CTG assay using 25 uL sample per well in 384-well microplates (in triplicates), as an independent determination for LIC growth. For assessment of extracellular cytokine on recovery of LICs that were previously challenged with dasatinib (0 to 72 h), washed master stocks were diluted to 5×10^5 total LICs per mL in BCM10 with or without 5 ng/mL IL7, plated in 6 well plates (10 cm² approx), and incubated at 37°C from 72 to 144 h for recovery, during which time daily naked-eye microscopic examinations were performed. At 144 h, for each sample total LIC density and viability percentage assessment by Beckman, viability and cell cycle percentages by flow assessment and independent CTG evaluations were performed as described for the 72 h time point. Cell growth trends by CTG readout corroborated the findings from trypan blue (Beckman) and DAPI staining (FACS). Key results are presented in **Supplementary Figure S6**; total viable LICs in a sample were calculated as a product of absolute LIC count determined by Beckman and absolute sample viability determined by FACS analysis. **Dasatinib re-challenge studies**

Further studies were performed to evaluate the possibility of a genetically drug-resistant subpopulation that could undergo selection with dasatinib/IL7 co-treatment during 0-72 h of dasatinib/cytokine washout studies above. To this aim, BCR-ABL^{WT} LICs were treated with 100 nM dasatinib or 0.1% DMSO in the absence or presence of 5 ng/mL IL7 in 100 mm dishes from 0-72 h, as described above; in addition, a dasatinib challenge (first-time challenge) across 6 log-

fold concentration in the presence or absence of 5 ng/mL IL7 was also performed using CTG assay during this time period (0-72 h). At 72 h, dasatinib/IL7 co-treated LICs from 100 mm dishes were washed (as described above) and immediately challenged (second challenge) from 72 to 144 h with six log-fold concentration range of dasatinib in 384-well microplates either in the presence or absence of 5 ng/mL IL7 using CTG assay. At 144 hrs, dasatinib showed similar potency against LICs in the absence of IL7, irrespective of previous dasatinib exposure. Furthermore, potency of dasatinib was blunted, to a similar extent, during both the first and second drug challenges only when extracellular IL7 was present (data not shown).

Detailed description of chemical library screened

The screening library consisted of 5600 (approximately 3200 unique) approved drugs and chemicals with known biological activity (bioactives). The library was assembled from 3 commercial suppliers: Microsource, Prestwick, and Sigma. The Microsource compounds included the following: (a) the Spectrum collection, which contains 2000 biologically active and structurally diverse compounds, including known drugs, experimental bioactives, and pure natural products(1, 2); (b) the US Drug Collection, which contains 1040 drugs that have reached clinical trials in the US and have been assigned USAN or US Pharmacopeia status; and (c) the Killer collection, which contains a reference set of 160 synthetic and natural toxic substances (<http://www.msdiscovery.com/index.html>). The Prestwick compounds include 1120 small molecules selected for high chemical and pharmacologic diversity. Ninety percent of the collection is composed of known marketed drugs, and the remainder includes bioactive alkaloids or related substances. Human bioavailability and human toxicity data are available for most compounds (<http://www.prestwickchemical.fr/index.php?pa=26>). The Sigma LOPAC1280 (Library of Pharmacologically Active Compounds) collection reflects the most commonly

screened targets in the drug discovery community, including marketed drugs, failed development candidates, and "gold standards" that have well-characterized activities (<http://www.sigmaaldrich.com/chemistry/drug-discovery/validation-libraries.html>).

Data processing, quality control and hit scoring criteria for HT drug screens

All data processing and visualization was performed using custom programs written in the Pipeline Pilot platform (Accelrys, v.7.5) and the R program 6.6(3, 4). The R drc package was used to fit sigmoidal curves(4). ROC statistics were computed using the ROCR package(5).

The quality of the primary drug-screening studies, performed in parallel against BCR-ABL^{WT} and BCR-ABL^{T315I} LICs, was evaluated by multiple methods including, but not limited to, identification of known antileukemic agents, identification of multiple compound replicates intentionally included in the 5600 collection, and Z' and other screening quality metrics (described in **Supplementary Figures S7 to S10**). In the screening experiments, all assay plates demonstrated attenuation of dasatinib potency in presence of IL7 or BCR-ABL mutation, similar to results described in **Figure 1a and 1b**. An empirically determined, statistically significant but liberal cut-off of >10% activity was chosen to include agents of relatively lower activity considering the high-risk nature of Ph+ ALL and the drug-rich nature of the library as well as to allow for a more complete structure-activity relationship and therapeutic class analysis after subsequent potency determination through secondary screening

The discriminatory power of the phenotypic assay was assessed using receiver operating characteristic (ROC) statistics. A total of 165 compounds were selected to sample the primary assay according to the distribution of observed activities. ROC curves are shown in **Supplementary Figure S10**. The assay has good discriminatory power; with similar AUCs of

approximately 0.83 and 0.85 against BCR-ABL^{WT} and BCR-ABL^{T315I} LICs, respectively (an ideal assay has an AUC of 1.0, whereas a random assay has an AUC of 0.5).

The activity class designations in the **Excel Supplement** were assigned based on the curve score and visual inspection of dose-response curves. The curve score is a 4 character code derived from the following heuristic:

- First character: letter (A,B,C or D) indicating curve quality
 - D = less than 2 points above the noise (defined as outliers from the negative control population)
 - C = $r^2 < 0.50$ or range > 200% or EC₅₀ > maximum concentration tested
 - A = $r^2 > 0.80$ and difference between two last points < 10% (indicating saturation)
 - B = not A,C, or D
 - N prefix = activity decreases with increase concentration
- Second character: number (1-6) indicating potency
 - 1 = EC₅₀ < 0.1 μM
 - 2 = 0.1 μM ≥ EC₅₀ < 1.0 μM
 - 3 = 1.0 μM ≥ EC₅₀ < 10.0 μM
 - 4 = EC₅₀ > 10.0 μM
 - 5 = all C and D curves are assigned 5
- Third character: number (1-6) indicating efficacy
 - 1 = 75% ≥ range < 200%
 - 2 = 50% ≥ range < 75%
 - 3 = 25% ≥ range < 50
 - 4 = range < 25%

- 5 = all C and D curves are assigned 5
- Fourth character: number (1-6) indicating hill slope
 - 1 = $\text{hill} \leq 2$
 - 2 = $2 < \text{hill} \leq 4$
 - 3 = $4 < \text{hill} \leq 8$
 - 4 = $\text{hill} > 8$
 - 5 = all C and D curves are assigned 5

A complete list of all compounds evaluated in the secondary drug-screening experiments with their structure, supplier information, synonyms, EC₅₀ values, and therapeutic classification is reported in the **Excel Supplement. Cluster analysis of hits using therapeutic classes**

The therapeutic cluster graph was generated by first assigning each compound an Anatomical Therapeutic Chemical Classification System (ATC). This classification system groups drugs into a 5 level hierarchy according to therapeutic indication and chemical properties. The first level indicates anatomical main group and consists of 1 letter; the second level indicates therapeutic main group and consists of 2 digits; the third level indicates therapeutic or pharmacological subgroup and consists of 1 letter; the fourth level indicates chemical, therapeutic or pharmacological subgroup and consists of one letter; and the fifth level indicates the chemical substance and consists of 2 digits. The resulting 7 characters constitute an ATC code, and a compound can be assigned multiple ATC codes. ATC codes can be depicted as a network graph by defining a node to represent each level in the ATC code and then connecting nodes according to parent-child relationships (e.g., first-level node A is the parent of second level nodes A01, A02, etc.). Compounds without an ATC code were assigned based on similarity to known agents, or were assigned to custom codes located under the parent V99

(labeled as “Not defined in ATC” in Figure 2). See Supplementary Figure 10 for the frequency of ATC Level 1 and Level 2 codes among the 706 compounds submitted to dose-response analysis.

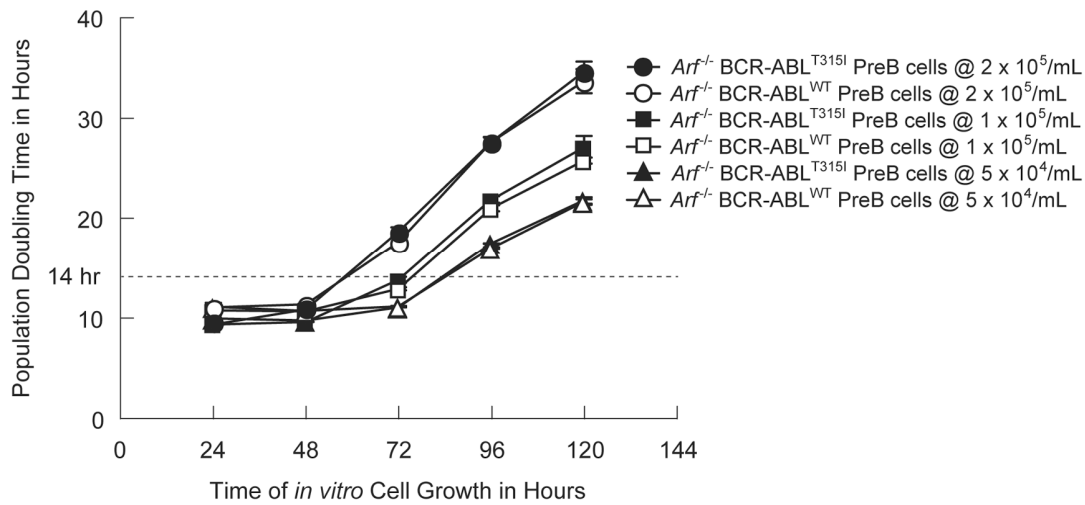
The resulting network was visualized in Cytoscape (v 2.8.1) using the yFiles circular layout algorithm(6). The cytoscape file for this network is available for download as part of this supplement.

***In vivo* preclinical therapeutic studies**

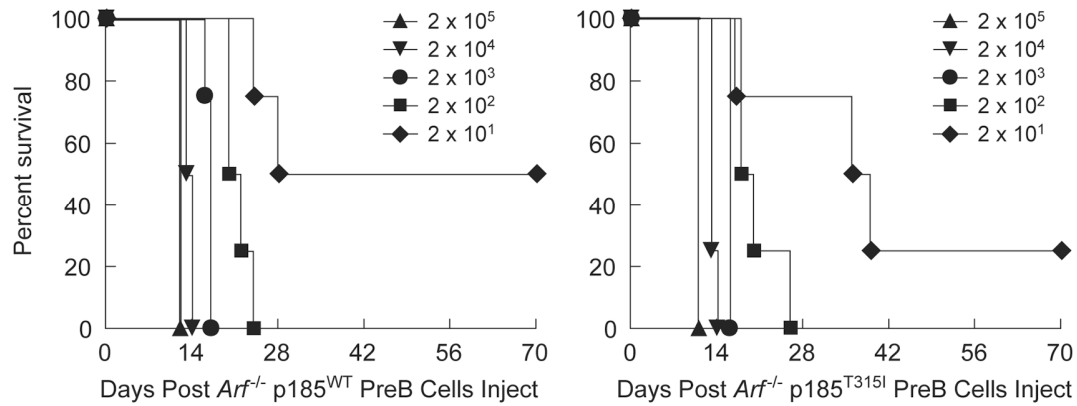
For *in vivo* use, dasatinib (LC Labs, Woburn, MA) in citric acid (pH 3.1) [25], and DHA (Avachem, San Antonio, TX) in 0.5% carboxy-methylcellulose/0.5% Tween 80/0.5% benzyl alcohol, were administered by oral gavage. In toxicity studies (data not shown), DHA was ranged up to 300 mg/kg as a single or split dose for 5 days/week over a six week time period. Repeated single doses of 300 mg/kg (5 days/week) were determined to induce no significant weight loss, lethargy, seizures or deaths [26]. During therapeutic studies, animal weights were monitored daily to ensure no significant body weight reductions.

Bioluminescent imaging and evaluation of cures

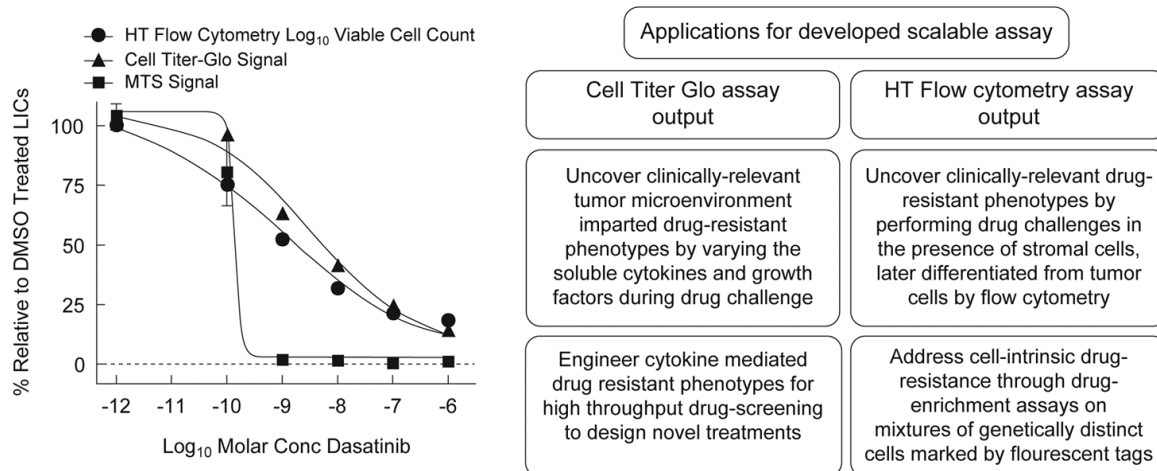
Bioluminescent imaging and analysis were performed using a Xenogen IVIS-200 system and Living Image software 3.01 (Caliper Life Sciences, Hopkinton, MA)[17]. Total bioluminescent flux measurements (photons/second) were quantified over the whole animal body. Recipient mice that remained clinically healthy 12 months after terminating therapy and had no detectable bioluminescent signal *in vivo* were designated “long-term survivors.”



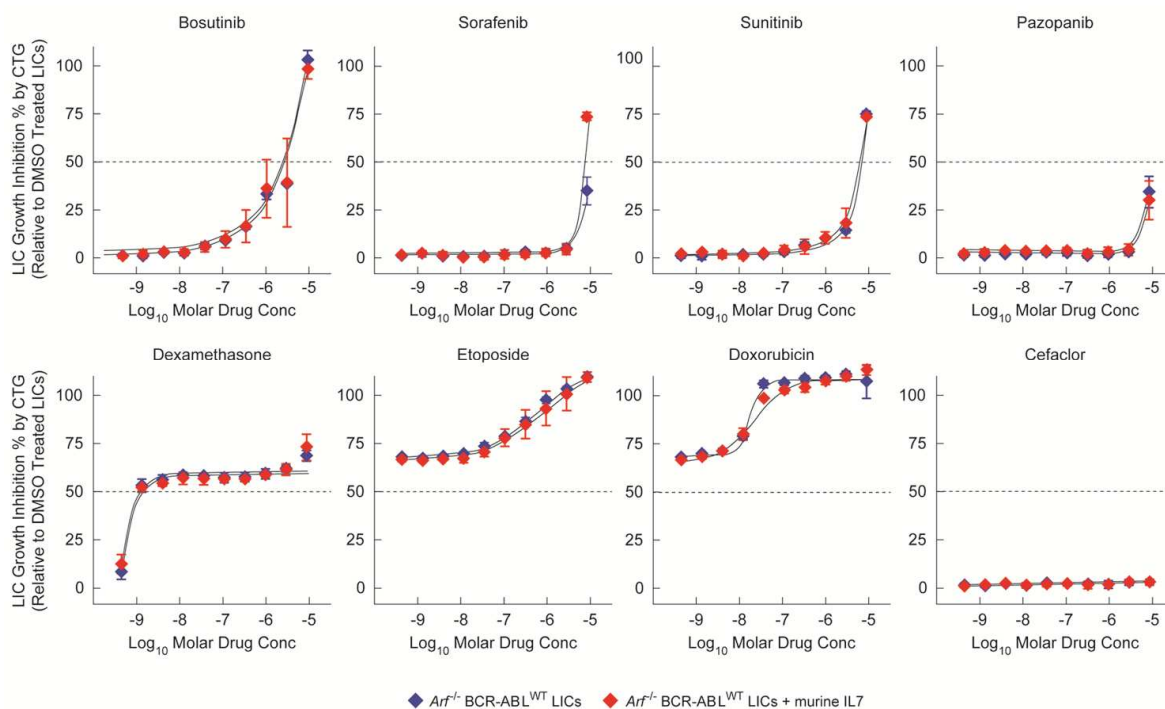
Supplementary Figure S1: *Comparison of the growth properties of Arf^{-/-} p185^{WT} (filled symbols) and Arf^{-/-} p185^{T315I} preB (empty symbols) populations during in vitro cell culture. Both cell types were plated at multiple cell dilutions (n=3 for each condition, time=0 h) in 6-well plates and serially followed daily for 5 days to evaluate absolute viable cell count, total viability, doubling times, and total population doublings, using the Beckman Coulter cell counter (trypan blue staining) and fluorescence-activated cell sorting (FACS) analysis in parallel. Both cell types had identical growth properties. Only the comparison for population doubling time in hours (+/- sd) for 3 relevant plating densities is presented. FACS cell-cycle analysis confirmed that a population doubling time less than 14 h was sufficient to maintain cells in exponential growth (>50% cells in S-phase).*



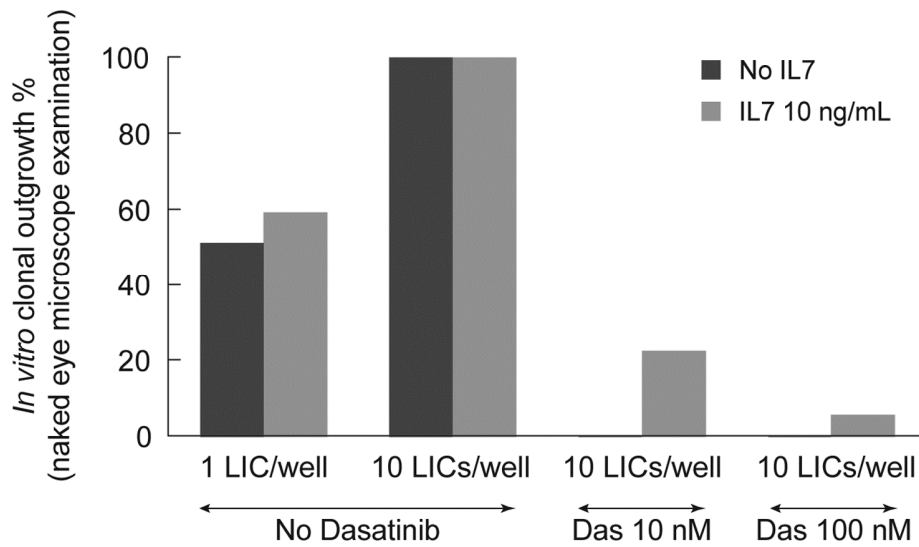
Supplementary Figure S2: Leukemia stem cell function (LSC) function assay by serial dilution and implantation comparing the in vivo leukemia initiating capacity of $Arf^{-/-}$ $p185^{WT}$ (left) and $Arf^{-/-}$ $p185^{T315I}$ preB (right) populations. Kaplan-Meier curves represent the overall survival of nonconditioned immunocompetent C57Bl/6J recipient mice that received serial log-fold dilutions ($n=4$ per arm) of LIC-number (as indicated in the inset legend) on day 0. $Arf^{-/-}$ $p185$ -transformed preB murine cells are hereafter referred as LICs.



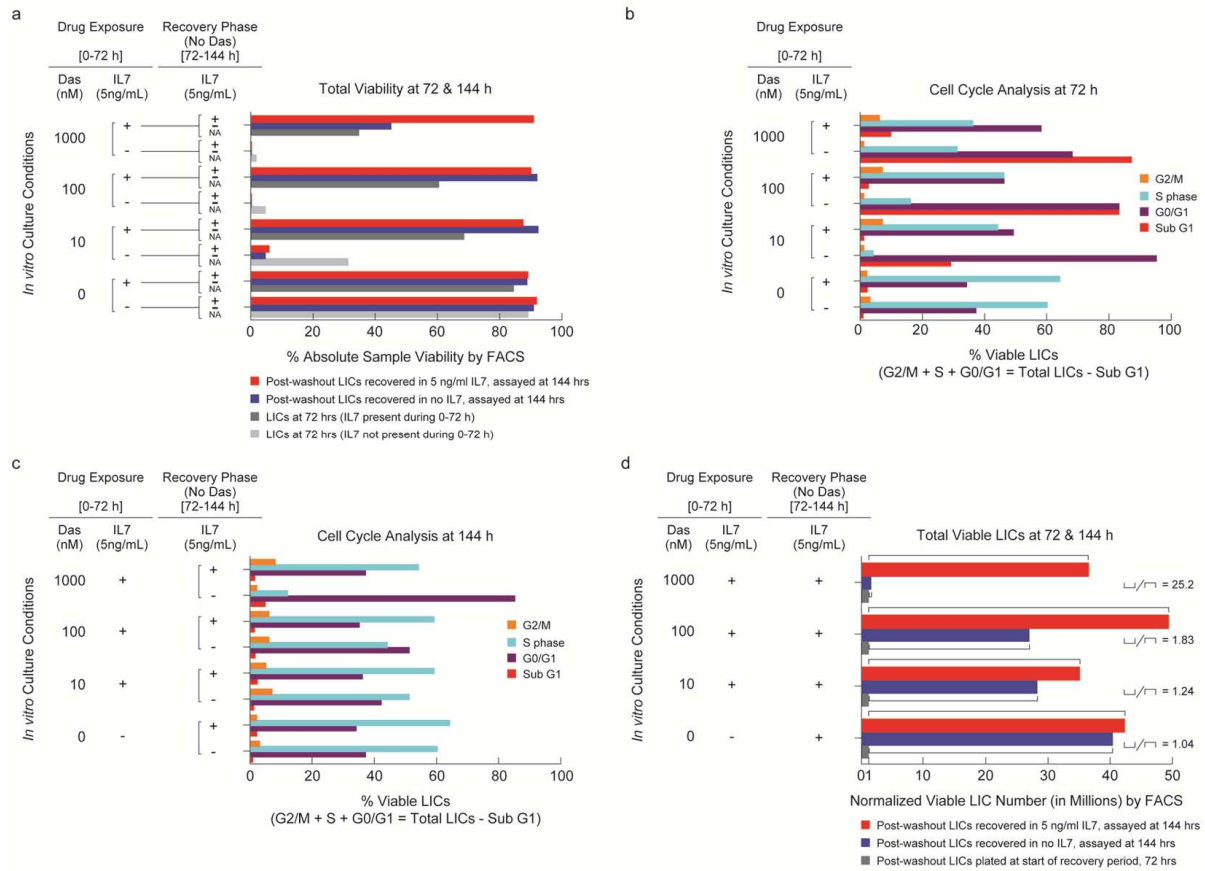
Supplementary Figure S3: Optimization of the high-throughput LIC-based phenotypic assay. *BCR-ABL^{WT}* LICs plated at 5×10^4 per mL were challenged with 6 log-fold concentration range of dasatinib or DMSO in 384-well microplates. After a 72 h drug challenge, LIC growth was measured by 3 cellular readouts: CellTiter-Glo (CTG) assay (ATP content), MTS assay (viability), and high-throughput flow cytometry (total viability and viable cell counts by DAPI exclusion). Measured assay readouts at various drug concentrations (x-axis) were normalized to DMSO-treated LICs and graphed (+/- sd) on y-axis. Total viable LIC counts were determined by FACS, reflecting dasatinib-induced phenotypic changes across a 6 log-fold drug-concentration, were closely paralleled by the CTG cellular assay output but not by the commonly used MTS assay.



Supplementary Figure 4: *Comparative evaluation of IL7-mediated protection conferred against non-BCR-ABL-specific targeting drugs (top panel) and conventional cytotoxic antileukemic clinical drugs (bottom panel). BCR-ABL^{WT} LICs were treated with indicated drugs or DMSO (no drug) for 72 h in the absence (blue) or presence (red) of high (10 ng/mL) murine IL7, in triplicates. The antibiotic drug Cefaclor (often used in leukemia clinics) was used as a non-antileukemic drug control. For each drug concentration, LIC growth was measured by the CTG assay and average values were normalized to DMSO-treated LICs and graphed (+/- sd).*

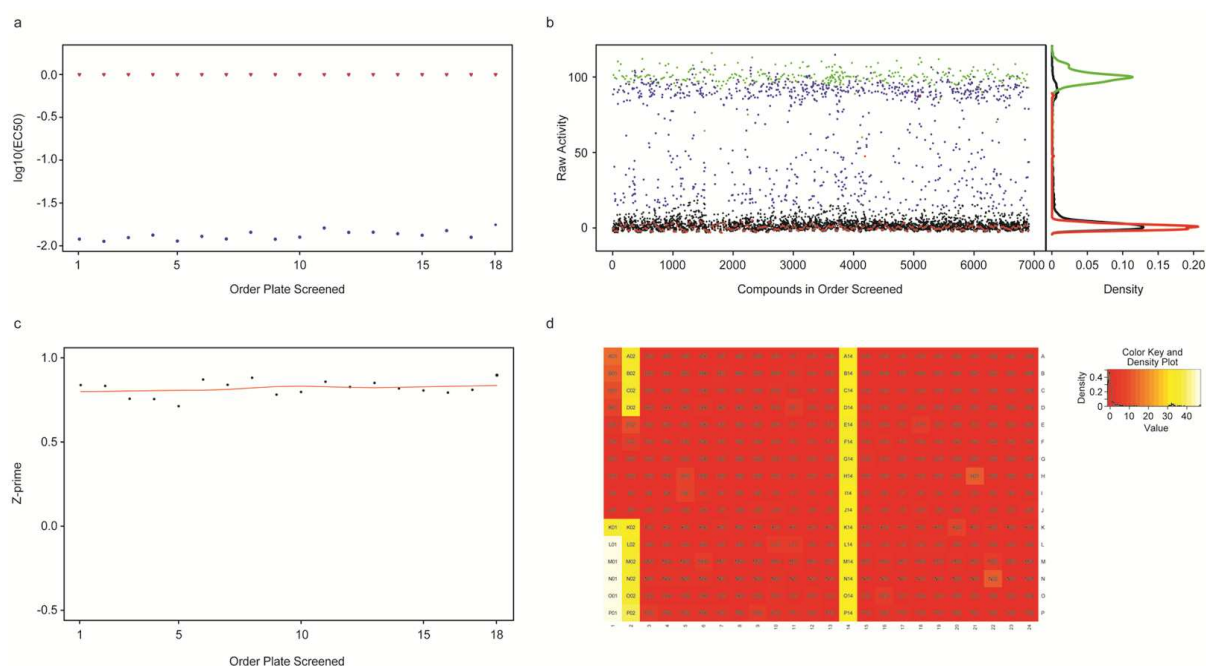


Supplementary Figure 5: *In vitro leukemia clonal outgrowth efficiency assays.* Either 1 or 10 viable BCR-ABL^{WT} LICs per well sorted by single-cell flow cytometry into 3 clear-bottom 384-well plates for each condition ($n=1152$) were treated ($t=0$) with DMSO (0.1 % by volume) or dasatinib in the absence (black) or presence (grey) of IL7 (10 ng/mL). After 8 days of incubation, naked-eye microscopic examination was performed. Wells showing significant positive growth (approximately ≥ 50 LICs per well) were scored positive and percentage of positive wells for each condition indicated on the x-axis was calculated.

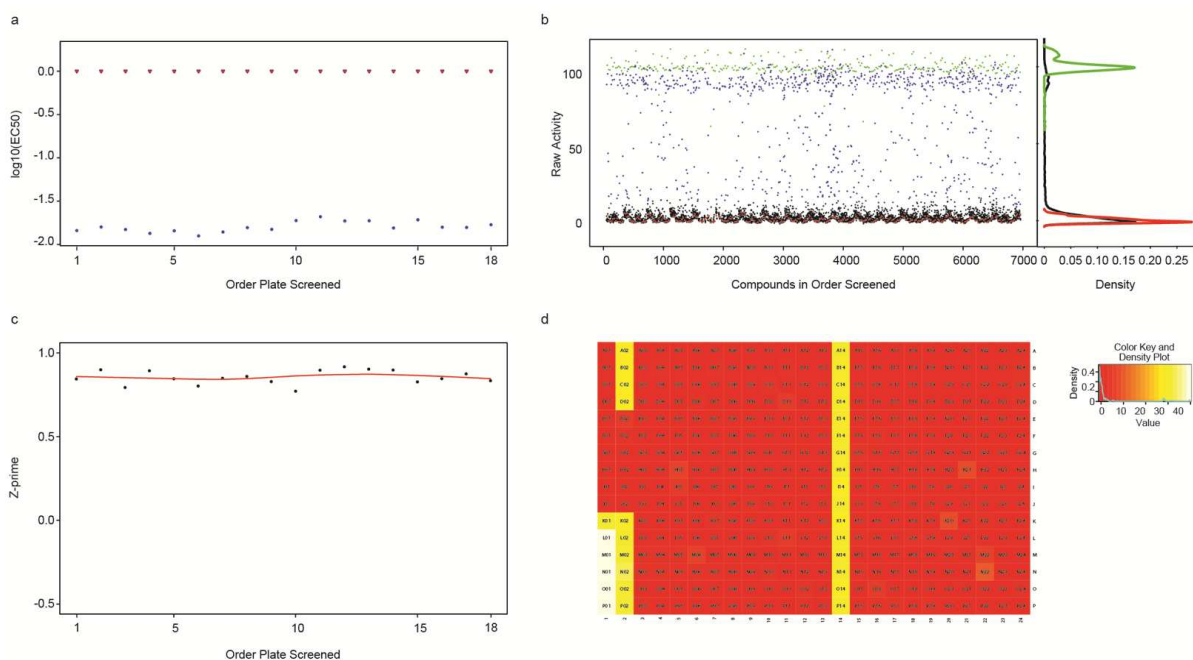


Supplementary Figure 6: Protection of $BCR-ABL^{WT}$ LICs by IL7 during dasatinib exposures (0 to 72 h) and in the post-exposure recovery period (72 to 144 h, no dasatinib). See Supplementary Methods above for details. (a) Total sample viabilities (DAPI staining, FACS) at the end of exposure period (dark gray=IL7; light gray=No IL7) and recovery period (red=IL7; blue=No IL7). Light gray vs. dark gray comparison depicts significant IL7 protection during dasatinib exposures. Few LICs surviving dasatinib exposures in the absence of IL7 (light gray), later deteriorated and died during recovery period, irrespective of IL7, confirming that $BCR-ABL$ inhibitor exposures commit $BCR-ABL^+$ cells to death(7). IL7 significantly improved recovery of dasatinib/IL7 co-treated LICs (red vs blue), clearly evident at 1000 nM but not at 100 nM and 10 nM dasatinib concentration because of over-confluent growth in presence of IL7

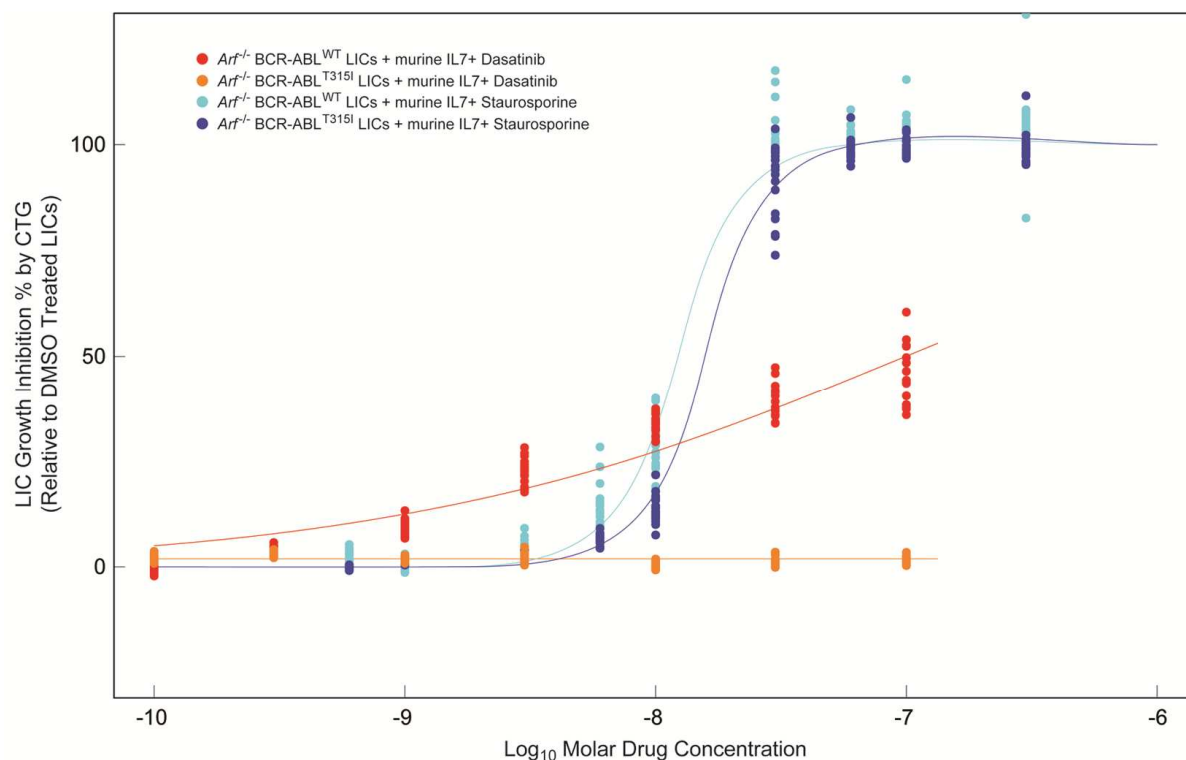
(see Methods, (c) and (d)). **(b)** Cell cycle changes (FACS) at the end of exposure period (corresponding to light and gray bars in (a)). Incremental dasatinib doses (which cause incremental BCR-ABL inhibition(8)) induced cell cycle arrest and apoptosis; IL7 significantly protected LICs from these changes **(c)** Cell cycle analysis at the end of recovery period (corresponding to blue and red in (a)). **(d)** Conditions showing positive LIC growth during recovery period, normalized for equal number of LICs plated at start of recovery (dark grey). Ratio of fold LIC-change in presence (face-down bracket) to that in absence (face-up bracket) of IL7 increased in LICs with higher previous BCR-ABL inhibition from higher dasatinib concentrations during exposure period.



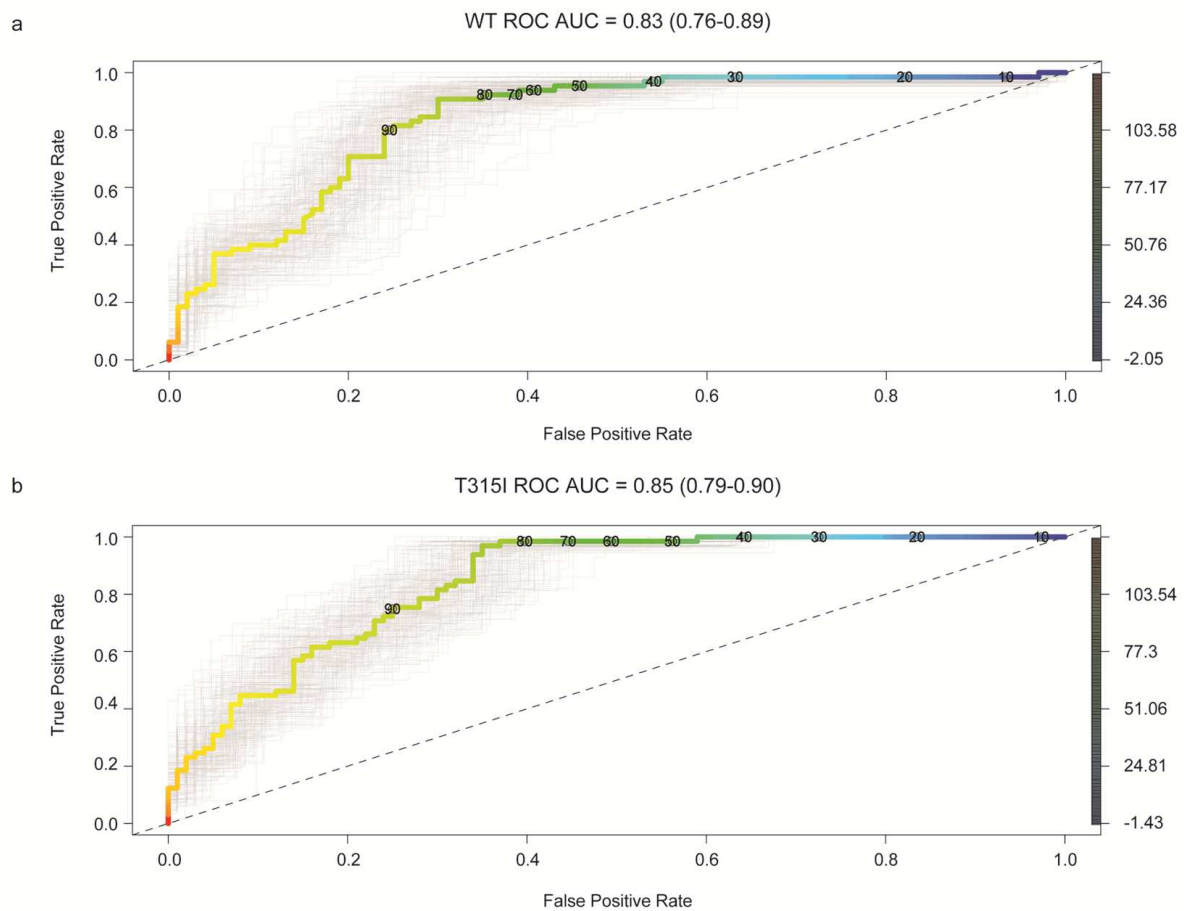
Supplementary Figure S7: Quality control for the primary screen of 5600 agents against BCR-ABL^{WT} LICs performed in the presence of 0.85 ng/mL IL7. See Supplementary table 1 for well locations. (a) Distribution of EC₅₀ of non-BCR-ABL-inhibiting reference compound staurosporine (calculated from wells 2A-2J in (d)). (b) Scatter plot of percent activity of the test compounds relative to controls. Good separation is seen between negative controls (red, DMSO-treated, max signal, column 13 in (d)) and positive controls (green, 300 nM staurosporine, min signal, column 14 in (d)). Test compounds showing statistically significant activity relative to background noise (negative controls, red) are depicted in blue and inactive test compounds in black. Densities for positive, negative, and test compounds are shown on the right. (c) Distribution of Z' values for each plate in the primary screen. All Z' values throughout the run – average=0.82, lowest=0.71 and highest=0.9 (d) Heat map comparison of well activity averaged across all plates. Wells 1A-1J and 2A-2J show serial dilutions of dasatinib and staurosporine. In presence of IL7, average LIC growth inhibition of approx. 45% was achieved by 100 nM dasatinib (well 1A), the later approaching maximum concentration achieved in human plasma.



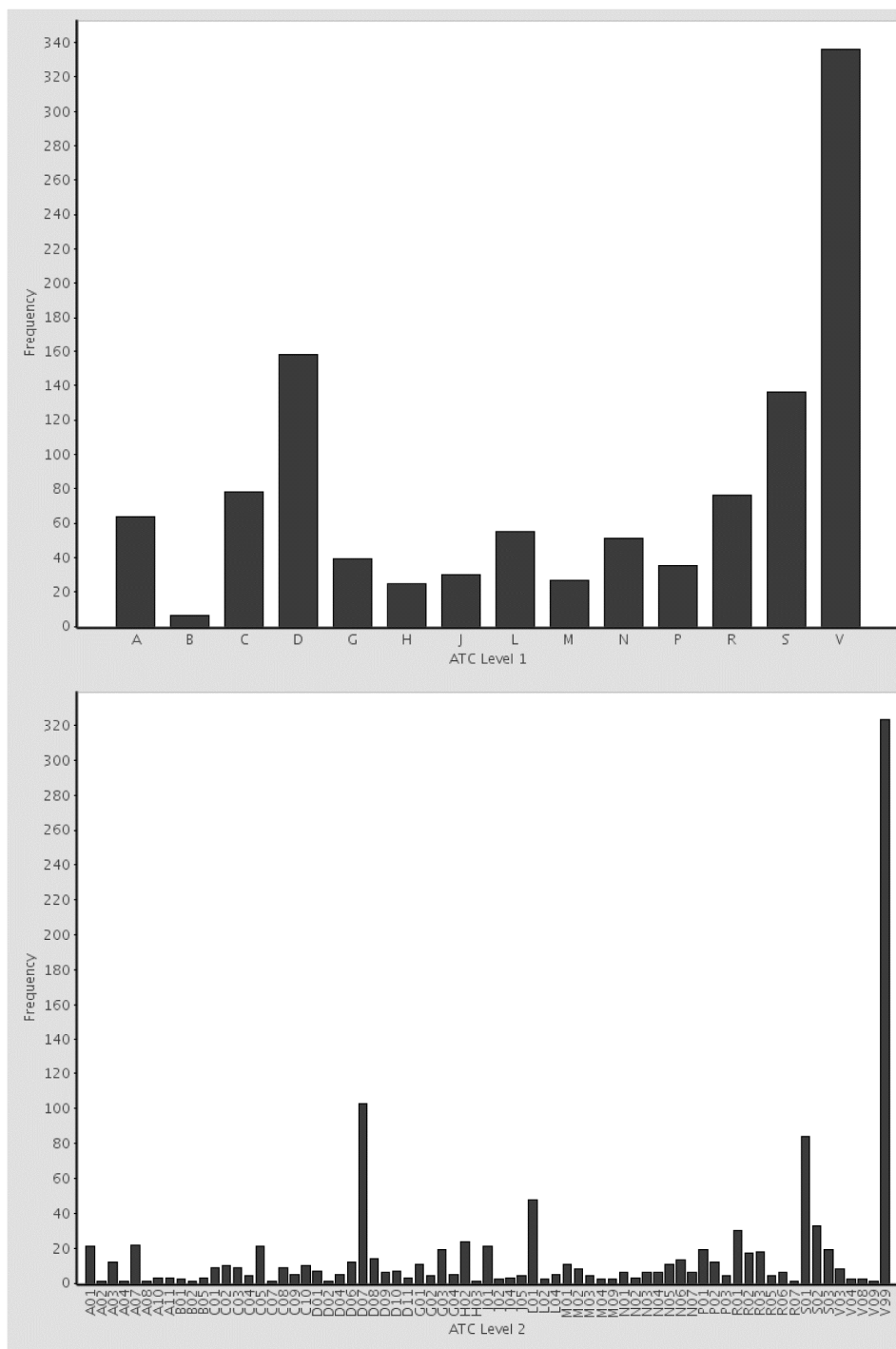
Supplementary Figure S8: Quality control for primary screen of 5600 agents against *BCR-ABL*^{T3151} LICs performed in the presence of 0.85 ng/mL IL7. (a) Distribution of EC₅₀ of non-*BCR-ABL*-inhibiting reference compound staurosporine (calculated from wells 2A-2J in (d)). (b) Scatterplot of percent activity of the test compounds relative to controls. Good separation is seen between negative controls (red, DMSO-treated, max signal, column 13 in (d)) and positive controls (green, 300 nM staurosporine, min signal, column 14 in (d)). Test compounds showing statistically significant activity relative to background noise (negative controls, red) are depicted in blue; inactive test compounds are black. (c) Distribution of Z' values for each plate in the primary screen. All Z' values throughout the run – average=0.85, lowest=0.77, and highest=0.92 (d) Heat map comparison of well activity averaged across all plates. Wells 1A-1J and 2A-2J show serial dilutions of dasatinib and staurosporine tested against *BCR-ABL*^{T3151} LICs. Although 100 nM dasatinib (Well 1A) was totally ineffective, well 2A with highest staurosporine concentration (300 nM) showed average LIC growth inhibition of approximately 100%.



Supplementary Figure S9: Primary high-throughput drug screening experiments capture BCR-ABL-KI drug-resistant phenotypes with high accuracy. Distributions of independent dose response curves of dasatinib and staurosporine against BCR-ABL^{WT} and BCR-ABL^{T315I} LICs in the presence of 0.85 ng/mL IL7 calculated separately from all assay plates (wells 1A-1J and 2A-2J) of primary drug screening experiments (also see Supplementary Fig. S7d and S8d) are presented. Both IL7-imparted dasatinib-resistant phenotype in BCR-ABL^{WT} LICs (EC_{50} in nM: 95%CI = 86-116, average >100) and BCR-ABL-mutation-imparted BCR-ABL-KI-resistant phenotype in BCR-ABL^{T315I} LICs, similar to **Figure 1b**, were consistently captured across all plates. Low interplate variability in calculated EC_{50} values was observed for the non-BCR-ABL-targeting reference compound staurosporine (95%CI for EC_{50} in nM: WT = 11-12, T315I = 15-16) and majority of the validated hits (refer the **Excel Supplement**).



Supplementary Figure S10: Receiver Operating Characteristic (ROC) analysis demonstrates that both (a) $BCR-ABL^{WT}$ and (b) $BCR-ABL^{T315I}$ LIC-based assays have high discriminatory power (AUC 0.83 and 0.85, respectively). The ROC curve is plotted as a function of % activity, and is color coded according to the right Y-axis. The ROC curves in gray are calculated from 200 bootstrap simulations. The dashed line corresponds to a random assay.



Supplementary Figure S11: Frequency of ATC Level 1 (top) and ATC Level 2 (bottom) compounds for the 706 compounds submitted to secondary analysis.

Supplementary Table 1: Steps in optimized high-throughput screening assay (CTG readout)

Step	Parameter	Value	Description
1	Plate cells	25 μ L	Plate LICs 5×10^4 per mL (25 μ L/well) in BCM10 + 0.85 ng/mL IL7 into 384-well opaque bottom white microplates using Wellmate (Matrix)
2	Primary drug screening controls in columns 1-2 and 13-14 Secondary drug screening controls in columns 21-24	25 nL 25 nL	1A-1I: Nine dasatinib concentrations (100 nM, 30 nM, 10nM, 3 nM, 1 nM, 0.3 nM, 0.1 nM, 0.03 nM and 0.01 nM) – control for IL7- and BCR-ABL mutation-imparted resistance against BCR-ABL-KIs 2A-2I: Nine staurosporine concentrations (300 nM, 100 nM, 60 nM, 30 nM, 10 nM, 6 nM, 3 nM, 1 nM, 0.6 nM)– non-BCR-ABL-specific reference control in the presence of IL7 13A-13P, 1J, 2J: DMSO 0.1% (<u>Max Signal OR Negative Control</u>); 14A-14P: staurosporine at 300 nM (<u>Min Signal OR Positive Control</u>); 1K-1P, 2K-2P: 40 μ M dasatinib 21A-21P: DMSO 0.1% (<u>Max Signal</u>); 22A-22P, 23K-24P, 24K-24P: staurosporine at 300 nM (<u>Min Signal</u>) 23A-23J: Staurosporine – 10 log-fold dilutions (3 μ M to 0.3 pM) - non-BCR-ABL–specific reference control in the presence of IL7 24A-24J: Dasatinib – 10 log-fold dilutions (1 μ M to 0.1 pM) – control for IL7- and BCR-ABL mutation-imparted BCR-ABL–KI drug-resistance
3	Add <u>test</u> compounds in columns 3-12 and 15-24 in primary; columns 1-20 in secondary screen	25 nL	<u>Primary screening</u> : Single final drug concentration of 10 μ M <u>Secondary screening</u> : Triplicate ten half-log serial dilutions (5 μ M to 2 nM final concentration) of primary screening hits to determine their half-maximal inhibitory concentrations (IC ₅₀) against LICs 384-well master drug-stock plates prepared at 1000X in DMSO. Drug delivered to assay plates by pin transfer (using V&P Scientific pin tool, 10H pins), giving a final drug concentration of 1 \times and 0.1% DMSO in all control and test wells of assay plates
4	Incubation 1	72 h	Liconics incubator, 8%CO ₂ , 37°C (standard LIC culture conditions)
5	Incubation 2	20 min	Room temp, low light (instructions as per Promega)
6	Add reagent	25 μ L	CellTiter Glo (Promega) pre-equilibrated to RT before use
7	Incubation 3	25 min	Room temp, low light (per Promega)
8	Assay readout	ATP levels	Envision, Luminescent mode – ATP levels as a measure of LIC number and viable growth in 72 h – <u>Signal</u> measured in RLUs
9	Data processing	Pipeline Pilot	% inhibition by test compound = $100 * (\text{Log}_{10}\text{Test Signal mean} - \text{Log}_{10}\text{Min Signal mean}) / (\text{Log}_{10}\text{Min Signal mean} - \text{Log}_{10}\text{Max Signal mean})$ Z-prime (Z') = $1 - [(3 * \text{stdev of Log}_{10}\text{Max Signal} + 3 * \text{stdev of Log}_{10}\text{Min Signal}) / (\text{Log}_{10}\text{Max Signal mean} - \text{Log}_{10}\text{Min Signal mean})]$ Z' is a dimensionless calculation

			to assess assay quality - for a good assay $Z' \geq 0.5$, and for a perfect assay $Z' = 1$
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Supplementary References

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Worksheet	Description	Legend	Notes
Host Factors	The effect of 15 leukemia-microenvironment relevant cytokines on dasatinib potency (EC ₅₀) against Arf/-BCR-ABLWT LICs	<ul style="list-style-type: none"> * hostFactor: cytokine name * conc: cytokine concentration * hill: hill slope * EC₅₀: dasatinib EC₅₀ (nM) * EC₅₀CI:= EC₅₀ 95% confidence interval * r²: r-squared of the non-linear regression * sample: St. Jude registration number (regnumber + batch number) * regnumber: St. Jude registration root number * supplier name: name of the chemical supplier for this compounds * supplier ID: vendor unique identifier * salt name: name of any salt present * salt eqs.: number of salt equivalents * solvate name: name of any solvate present * solvate eqs.: number of solvate equivalents * formula weight: total molecular weight of all species present in the sample * molsmiles: molecular SMILES * synonym: alternate names for this compound 	Triplicate measurements were pooled and fit to a single curve using a two parameter logistic model (bottom fixed to 0% and top fixed to 100%)
Structure	Structural information for 706 compounds	<ul style="list-style-type: none"> * Name of clinical anti-leukemic agent * WT_EC₅₀: mouse wild-type BCR-ABL B-cell EC₅₀ (μM) * WT_EC₅₀CI: WT EC₅₀ 95% confidence interval * WT_actclass: WT activity classification * WT_curveScore: grade for quality of the WT dose-response curve (see Supplemental for details) * T315I_EC₅₀: mouse T315I BCR-ABL B-cell EC₅₀ (μM) * T315I_EC50CI: T315I EC50 95% confidence interval * T315I_actclass: T315I activity classification * T315I_curveScore: grade for quality of the T315I dose-response curve (see Supplemental for details) 	Conventional anti-leukemic agents - Cladribine, Clofarabine, Decitabine, Fludarabine, Nelarabine and Pentostatin, all of which are nucleoside analogs/antimetabolites, were originally not present among agents tested; many agents with similar MOA were validated. Other clinical anti-leukemic agents which belong to categories - antibody, growth factors, enzymes or oligonucleotides, are not compatible to HTS and were not present in the tested compound library.
Screen Summary (1)	List of 15 clinically-used conventional anti-leukemic agents validated during dose-response screening experiments	<ul style="list-style-type: none"> * WT_EC₅₀: mouse wild-type BCR-ABL B-cell EC₅₀ (μM) * WT_EC₅₀CI: WT EC₅₀ 95% confidence interval * WT_actclass: WT activity classification * WT_curveScore: grade for quality of the WT dose-response curve (see Supplemental for details) * T315I_EC₅₀: mouse T315I BCR-ABL B-cell EC₅₀ (μM) * T315I_EC50CI: T315I EC50 95% confidence interval * T315I_actclass: T315I activity classification * T315I_curveScore: grade for quality of the T315I dose-response curve (see Supplemental for details) 	A few compounds showed differential activity between WT and T315I. Most of these are annotated with "Differential activity within experimental error", indicating that there was sufficient uncertainty in the curve fit or that the differences are a result of the hard cutoffs applied for activity classification and are not significant.
Screen Summary (2)	Complete dose-response screening data for 706 compounds	<ul style="list-style-type: none"> * WT_EC₅₀: mouse wild-type BCR-ABL B-cell EC₅₀ (μM) * WT_EC₅₀CI: WT EC₅₀ 95% confidence interval * WT_actclass: WT activity classification * WT_curveScore: grade for quality of the WT dose-response curve (see Supplemental for details) * T315I_EC₅₀: mouse T315I BCR-ABL B-cell EC₅₀ (μM) * T315I_EC50CI: T315I EC50 95% confidence interval * T315I_actclass: T315I activity classification * T315I_curveScore: grade for quality of the T315I dose-response curve (see Supplemental for details) * comment: comments on - observed differential activity 	

ATC Classification ATC classification for 706 compounds

- * **ATC_L1**: Anatomical Therapeutic Chemical (ATC) Classification System first level (anatomical main group)
- * **ATC_L2**: Anatomical Therapeutic Chemical (ATC) Classification System second level (therapeutic main group)
- * **ATC_L3**: Anatomical Therapeutic Chemical (ATC) Classification System third level (therapeutic/pharmacological subgroup)
- * **ATC_L4**: Anatomical Therapeutic Chemical (ATC) Classification System fourth level (chemical/therapeutic/pharmacological subgroup)

hostFactor	conc	hill	EC ₅₀	EC ₅₀ CI	r ²
IL3	0.0 ng/ml	0.5391	5.1118	3.8724 - 6.7479	0.987
IL3	0.01 ng/mL	0.4619	7.5159	5.4628 - 10.3405	0.983
IL3	0.1 ng/mL	0.3164	22.1664	12.1764 - 40.3525	0.944
IL3	1 ng/mL	0.3553	23.3197	14.1087 - 38.5443	0.958
IL3	10 ng/mL	0.3911	22.5621	14.9315 - 34.0924	0.971
IL3	100 ng/mL	0.4276	21.5773	15.2841 - 30.4619	0.979
IL15	0.0 ng/ml	0.5374	4.5252	3.4241 - 5.9805	0.987
IL15	0.01 ng/mL	0.5456	4.7956	3.6317 - 6.3325	0.987
IL15	0.1 ng/mL	0.5223	5.1369	3.9508 - 6.6792	0.988
IL15	1 ng/mL	0.5639	4.6853	3.4341 - 6.3924	0.984
IL15	10 ng/mL	0.5474	4.8593	3.7109 - 6.3630	0.987
IL15	100 ng/mL	0.5803	4.2075	3.2656 - 5.4211	0.989
IL6	0.0 ng/ml	0.5269	4.5635	3.2798 - 6.3497	0.982
IL6	0.01 ng/mL	0.5395	4.6483	3.4190 - 6.3197	0.984
IL6	0.1 ng/mL	0.5771	4.2131	3.1209 - 5.6876	0.984
IL6	1 ng/mL	0.5312	4.645	3.4403 - 6.2716	0.984
IL6	10 ng/mL	0.5605	4.494	3.4060 - 5.9295	0.986
IL6	100 ng/mL	0.5772	4.4834	3.4583 - 5.8123	0.988
SCF	0.0 ng/ml	0.5433	5.0496	3.8776 - 6.5759	0.988
SCF	0.01 ng/mL	0.5206	5.1184	3.7436 - 6.9982	0.984
SCF	0.1 ng/mL	0.5289	4.7638	3.5384 - 6.4137	0.985
SCF	1 ng/mL	0.5263	4.9426	3.7637 - 6.4909	0.987
SCF	10 ng/mL	0.5293	4.9611	3.5256 - 6.9812	0.98
SCF	100 ng/mL	0.5473	4.8079	3.7504 - 6.1636	0.989
FLT3	0.0 ng/ml	0.5785	4.0982	2.9655 - 5.6635	0.982
FLT3	0.01 ng/mL	0.5549	3.251	2.3904 - 4.4215	0.984
FLT3	0.1 ng/mL	0.5837	4.0456	3.1306 - 5.2282	0.988
FLT3	1 ng/mL	0.5677	4.1235	2.9621 - 5.7402	0.981
FLT3	10 ng/mL	0.567	3.6648	2.7944 - 4.8065	0.987
FLT3	100 ng/mL	0.6116	3.9157	2.9477 - 5.2015	0.986
IL4	0.0 ng/ml	0.494	6.2811	4.3841 - 8.9990	0.979
IL4	0.01 ng/mL	0.4721	7.6786	5.1536 - 11.4406	0.974
IL4	0.1 ng/mL	0.4582	10.607	7.3974 - 15.2093	0.978
IL4	1 ng/mL	0.4529	11.2471	7.8367 - 16.1418	0.978
IL4	10 ng/mL	0.4687	10.4343	7.1849 - 15.1533	0.977
IL4	100 ng/mL	0.4579	11.1402	7.6311 - 16.2629	0.976
TSLP	0.0 ng/ml	0.5017	4.9482	3.5263 - 6.9434	0.981
TSLP	0.01 ng/mL	0.4805	5.692	3.8453 - 8.4256	0.975
TSLP	0.1 ng/mL	0.5043	8.314	6.0702 - 11.3872	0.983
TSLP	1 ng/mL	0.456	13.35	10.1901 - 17.4896	0.987
TSLP	10 ng/mL	0.4007	18.4296	12.8535 - 26.4247	0.978
TSLP	100 ng/mL	0.4177	17.6412	11.9235 - 26.1008	0.974
MCSF	0.0 ng/ml	0.5307	4.8682	3.5748 - 6.6296	0.984
MCSF	0.01 ng/mL	0.5375	4.803	3.0670 - 7.5216	0.968
MCSF	0.1 ng/mL	0.5247	5.4838	3.8284 - 7.8550	0.979
MCSF	1 ng/mL	0.5357	4.6983	3.2180 - 6.8595	0.977
MCSF	10 ng/mL	0.517	4.6896	3.2354 - 6.7975	0.978
MCSF	100 ng/mL	0.5489	4.943	3.4050 - 7.1756	0.978
IL9	0.0 ng/ml	0.5582	4.2149	2.9368 - 6.0491	0.979
IL9	0.01 ng/mL	0.5585	4.3679	3.0111 - 6.3359	0.977
IL9	0.1 ng/mL	0.5698	4.0533	2.8653 - 5.7341	0.98
IL9	1 ng/mL	0.538	4.6609	3.1394 - 6.9198	0.975
IL9	10 ng/mL	0.5789	4.4575	2.8883 - 6.8792	0.97
IL9	100 ng/mL	0.5306	5.3572	3.5917 - 7.9905	0.975
GMCSF	0.0 ng/ml	0.4922	4.9682	3.4753 - 7.1024	0.979
GMCSF	0.01 ng/mL	0.5195	4.4331	3.1515 - 6.2359	0.981
GMCSF	0.1 ng/mL	0.4903	5.2002	3.7301 - 7.2496	0.982
GMCSF	1 ng/mL	0.5287	5.0754	3.5354 - 7.2862	0.978
GMCSF	10 ng/mL	0.4985	5.1825	3.6136 - 7.4324	0.979
GMCSF	100 ng/mL	0.5077	5.2664	3.9156 - 7.0832	0.985
CXCL12	0.0 ng/ml	0.5302	4.2517	3.0049 - 6.0157	0.98
CXCL12	0.01 ng/mL	0.5506	4.02	2.8966 - 5.5790	0.982
CXCL12	0.1 ng/mL	0.555	4.3428	3.0724 - 6.1384	0.98
CXCL12	1 ng/mL	0.5543	4.9481	3.5552 - 6.8868	0.982
CXCL12	10 ng/mL	0.5257	6.341	4.6141 - 8.7143	0.983
CXCL12	100 ng/mL	0.5626	7.7776	5.4588 - 11.0814	0.979
GCSF	0.0 ng/ml	0.4859	5.3848	3.8070 - 7.6163	0.98
GCSF	0.01 ng/mL	0.4888	5.6829	4.1379 - 7.8048	0.983
GCSF	0.1 ng/mL	0.4995	5.2436	3.5467 - 7.7522	0.975
GCSF	1 ng/mL	0.5238	4.4557	2.9858 - 6.6491	0.974
GCSF	10 ng/mL	0.5082	5.5333	3.8070 - 8.0422	0.977
GCSF	100 ng/mL	0.5071	5.5916	3.8599 - 8.1003	0.978
TGFb	0.0 ng/ml	0.5196	4.4138	3.1588 - 6.1674	0.981
TGFb	0.01 ng/mL	0.8345	2.0792	1.3877 - 3.1152	0.972
TGFb	0.1 ng/mL	1.3386	1.0712	0.6824 - 1.6815	0.943
TGFb	1 ng/mL	1.1768	1.2921	0.8022 - 2.0810	0.949
TGFb	10 ng/mL	1.0645	1.4597	0.8969 - 2.3756	0.954
TGFb	100 ng/mL	1.258	1.4057	0.8535 - 2.3151	0.947
IL2	0.0 ng/ml	0.5186	4.3969	3.0447 - 6.3495	0.978
IL2	0.01 ng/mL	0.4837	4.8218	3.3902 - 6.8578	0.98

IL2	0.1 ng/mL	0.4856	4.531	3.0037 - 6.8346	0.974
IL2	1 ng/mL	0.51	4.4851	3.1998 - 6.2866	0.981
IL2	10 ng/mL	0.5181	4.753	3.2444 - 6.9630	0.977
IL2	100 ng/mL	0.507	4.6062	3.3039 - 6.4219	0.982
IL7	0.0 ng/ml	0.4659	7.0902	5.2763 - 9.5276	0.985
IL7	0.01 ng/mL	0.3318	61.9094	41.1312 - 93.1840	0.971
IL7	0.1 ng/mL	0.3661	251.4246	157.6730 - 400.9203	0.958
IL7	1 ng/mL	0.3761	281.2124	165.0664 - 479.0824	0.947
IL7	10 ng/mL	0.383	286.5185	173.4620 - 473.2615	0.95
IL7	100 ng/mL	0.352	448.189	245.0635 - 819.6787	0.938

Name of clinical anti-leukemic agent	sample	WT_EC ₅₀	WT_EC ₅₀ CI	WT_curveScore	WT_actclass	T315l_EC ₅₀	T315l_EC ₅₀ CI	T315l_curveScore	T315l_actclass
CYTARABINE	SJ000285188-6	0.0639	0.0425 - 0.0961	A113	HIGH	0.0603	0.0355 - 0.1023	A113	HIGH
MELPHALAN*	SJ000285194-4	>5	NA	C555	WEAK	3.9408	NA	C555	WEAK
MERCAPTOPURINE	SJ000285195-2	0.0211	0.0013 - 0.3518	A111	HIGH	0.0444	0.0342 - 0.0575	B110	HIGH
METHOTREXATE	SJ000285196-2	0.0225	0.0014 - 0.3699	A111	HIGH	0.0438	0.0316 - 0.0606	A112	HIGH
THIOGUANINE	SJ000285208-3	0.0441	0.0248 - 0.0786	B110	HIGH	0.0202	0.0010 - 0.4084	B110	HIGH
AMINOPTINE	SJ000285221-4	<0.1	NA	B110	HIGH	<0.1	NA	B110	HIGH
AZACITIDINE	SJ000285227-1	1.2936	0.9338 - 1.7920	B311	WEAK	1.2871	0.8082 - 2.0498	B311	WEAK
ETOPOSIDE	SJ000285235-3	0.1369	0.1148 - 0.1632	A212	MED	0.1368	0.1164 - 0.1608	A212	MED
MITOXANTRONE	SJ000285321-4	0.0433	0.0348 - 0.0539	A112	HIGH	0.044	0.0361 - 0.0536	A112	HIGH
HYDROCORTISONE	SJ000285358-5	0.1905	0.1782 - 0.2036	A212	MED	0.19	0.1788 - 0.2020	A212	MED
PREDNISOLONE	SJ000285541-3	0.1573	0.1495 - 0.1654	A212	MED	0.1541	0.1406 - 0.1689	A212	MED
DEXAMETHASONE	SJ000285729-2	<0.1	0.0039 - 4.1318	B110	HIGH	0.0374	0.0102 - 0.1371	B110	HIGH
AMSACRINE	SJ000285974-2	0.0861	0.0767 - 0.0967	A112	HIGH	0.0747	0.0627 - 0.0889	A112	HIGH
IDARUBICIN	SJ000287925-2	<0.1	NA	B110	HIGH	<0.1	NA	B110	HIGH
VINCRIStINE	SJ000288244-2	0.1045	0.0914 - 0.1194	A213	MED	0.1311	0.0021 - 8.2851	A214	MED

*often performs poorly in HTS

sample	WT_EC50	WT_EC50Cl	WT_curveScore	WT_actclass	T3151_EC50	T3151_EC50Cl	T3151_curveScore	T3151_actclass	comment
SJ00000250-8	>5	NA	B241	INACTIVE	>5	NA	D555	INACTIVE	
SJ00000854-6	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE	
SJ000113084-4	>5	NA	C555	INACTIVE	>5	NA	D555	INACTIVE	
SJ000128662-3	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE	
SJ000285182-2	>5	NA	C555	INACTIVE	>5	NA	D555	INACTIVE	
SJ000285183-2	0.2213	0.1535 - 0.3190	A211	MED	0.21	0.1479 - 0.2981	A212	MED	
SJ000285185-4	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE	
SJ000285188-6	0.0639	0.0425 - 0.0961	A113	HIGH	0.0603	0.0355 - 0.1023	A113	HIGH	
SJ000285190-2	0.7932	0.7229 - 0.8703	A212	MED	0.7231	0.6469 - 0.8083	A212	MED	
SJ000285193-1	2.1027	2.0841 - 2.1214	B313	WEAK	2.285	2.2763 - 2.2937	B313	WEAK	
SJ000285194-2	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE	
SJ000285194-4	>5	NA	C555	WEAK	3.9408	NA	C555	WEAK	
SJ000285195-2	0.0211	0.0015 - 0.3518	A111	HIGH	0.0444	0.0342 - 0.0575	B110	HIGH	
SJ000285196-2	0.0225	0.0014 - 0.3699	A111	HIGH	0.0438	0.0316 - 0.0606	A112	HIGH	
SJ000285197-1	0.1499	0.1248 - 0.1800	A212	MED	0.1542	0.1235 - 0.1926	A212	MED	
SJ000285200-6	1.2025	0.8162 - 1.7718	B311	WEAK	1.1389	0.8043 - 1.6128	B311	WEAK	
SJ000285202-2	1.8339	1.7982 - 1.8703	B313	WEAK	1.7597	1.6984 - 1.8232	A313	WEAK	
SJ000285203-5	<-0.1	NA	B110	HIGH	0.0824	0.0695 - 0.0978	A111	HIGH	
SJ000285206-2	>5	NA	NC555	INACTIVE	>5	NA	C555	INACTIVE	
SJ000285207-1	0.4043	0.3822 - 0.4278	A213	MED	0.4118	0.3793 - 0.4471	A213	MED	
SJ000285209-3	0.0441	0.0248 - 0.0786	B110	HIGH	0.0202	0.0010 - 0.4084	B110	HIGH	
SJ000285210-2	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE	
SJ000285212-1	1.6282	1.5516 - 1.7085	A313	WEAK	1.7678	1.7312 - 1.8052	B313	WEAK	
SJ000285215-1	1.0484	0.8816 - 1.2467	A313	WEAK	1.0426	0.8815 - 1.2333	A313	WEAK	
SJ000285215-6	0.0552	0.0513 - 0.0594	A113	HIGH	0.0527	0.0477 - 0.0583	A113	HIGH	
SJ000285218-5	>5	NA	B332	INACTIVE	>5	NA	C555	INACTIVE	
SJ000285219-2	2.0837	2.0004 - 2.1703	B312	WEAK	1.7397	1.5755 - 1.9210	B312	WEAK	
SJ000285219-5	2.9391	2.8596 - 3.0208	B312	WEAK	2.8605	2.7902 - 2.9326	B312	WEAK	
SJ000285220-5	>5	NA	C555	WEAK	2.8062	0.5197 - 15.1529	B314	WEAK	
SJ000285221-4	<-0.1	NA	B110	HIGH	<-0.1	NA	B110	HIGH	
SJ000285225-2	0.1607	0.1521 - 0.1698	A212	MED	0.1603	0.1544 - 0.1665	A213	MED	
SJ000285226-6	>5	NA	B130	INACTIVE	>5	NA	A231	INACTIVE	
SJ000285227-1	1.2936	0.9338 - 1.7920	B311	WEAK	1.2871	0.8082 - 2.0498	B311	WEAK	
SJ000285228-4	0.3344	0.3149 - 0.3551	A211	MED	0.4033	0.3922 - 0.4148	A211	MED	
SJ000285229-2	1.9757	1.9316 - 2.0207	B322	WEAK	1.9622	1.8651 - 2.0644	B322	WEAK	
SJ000285231-2	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE	
SJ000285232-1	0.117	0.1002 - 0.1366	A113	HIGH	0.1133	0.0990 - 0.1285	A213	HIGH	
SJ000285232-8	0.0619	0.0351 - 0.1092	A114	HIGH	0.0566	0.0444 - 0.0721	A114	HIGH	
SJ000285234-2	0.3225	0.2286 - 0.4550	A211	MED	0.3737	0.3442 - 0.4058	A211	MED	
SJ000285235-3	0.1369	0.1148 - 0.1632	A212	MED	0.1368	0.1164 - 0.1608	A212	MED	
SJ000285238-3	0.1022	0.0880 - 0.1188	A213	MED	0.1214	0.0955 - 0.1542	A214	MED	
SJ000285241-3	0.1569	0.1188 - 0.2071	B110	MED	0.1024	0.0737 - 0.1421	A211	MED	
SJ000285242-3	4.4693	NA	C555	WEAK	>5	NA	C555	INACTIVE	Differential activity within experimental error
SJ000285242-4	0.58	0.4327 - 0.5325	A213	MED	0.4074	0.3682 - 0.4508	A213	MED	
SJ000285244-3	1.5123	1.4802 - 1.5347	A313	WEAK	1.7214	1.6838 - 1.7597	A313	WEAK	
SJ000285246-2	0.0225	0.6899 - 0.9806	A212	MED	0.9896	0.8088 - 1.2108	A212	MED	
SJ000285249-1	<-0.1	NA	B110	HIGH	<-0.1	NA	B110	HIGH	
SJ000285256-3	0.3341	0.2737 - 0.4077	A212	MED	0.3286	0.2649 - 0.4076	A212	MED	
SJ000285261-3	0.2342	0.1932 - 0.2840	A213	MED	0.2457	0.1708 - 0.3535	A214	MED	
SJ000285262-1	>5	NA	C555	WEAK	>5	NA	C555	WEAK	
SJ000285263-2	>5	NA	D555	INACTIVE	>5	NA	A241	INACTIVE	
SJ000285267-3	0.0853	0.0560 - 0.1301	A112	HIGH	0.1561	0.1245 - 0.1956	A212	MED	Differential activity within experimental error
SJ000285270-2	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE	
SJ000285272-2	<-0.1	NA	B110	HIGH	<-0.1	NA	B110	HIGH	
SJ000285273-3	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE	
SJ000285276-2	4.0523	NA	C555	WEAK	3.1302	2.9524 - 3.3187	B312	WEAK	
SJ000285278-1	<-1.0	NA	C555	MED	<1.0	NA	C555	MED	
SJ000285279-2	>5	NA	NC555	INACTIVE	>5	NA	D555	INACTIVE	
SJ000285285-3	>5	NA	B141	INACTIVE	>5	NA	B241	INACTIVE	
SJ000285292-10	>5	NA	D555	INACTIVE	>5	NA	NC555	INACTIVE	
SJ000285294-1	0.074	0.0659 - 0.0830	A113	HIGH	0.0742	0.0666 - 0.0828	A113	HIGH	
SJ000285299-2	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE	
SJ000285307-3	>5	NA	B344	INACTIVE	>5	NA	B334	INACTIVE	
SJ000285308-1	0.5458	0.5060 - 0.5886	A213	MED	0.5062	0.4281 - 0.5985	A213	MED	
SJ000285313-3	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE	
SJ000285315-2	1.0561	1.0324 - 1.0803	B312	WEAK	0.7384	0.6862 - 0.7946	A212	MED	Differential activity within experimental error
SJ000285316-4	>5	NA	D555	INACTIVE	>5	NA	C555	INACTIVE	
SJ000285317-2	>5	NA	NC555	INACTIVE	3.8254	NA	C555	WEAK	Differential activity within experimental error
SJ000285318-7	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE	
SJ000285319-1	1.7406	1.6598 - 1.8256	A314	WEAK	2.5496	1.9306 - 2.9295	B314	WEAK	
SJ000285321-4	0.0433	0.0348 - 0.0539	A112	HIGH	0.044	0.0361 - 0.0536	A112	HIGH	
SJ000285323-3	>5	NA	B332	INACTIVE	>5	NA	B321	INACTIVE	
SJ000285327-1	1.6528	1.6211 - 1.6851	A313	WEAK	1.8204	1.7962 - 1.8449	B313	WEAK	
SJ000285332-1	0.1515	0.1256 - 0.1826	A212	MED	0.2075	0.1841 - 0.2338	A212	MED	
SJ000285334-4	>5	NA	C555	INACTIVE	0	NA	C555	INACTIVE	
SJ000285335-1	0.0666	0.0196 - 0.2261	A114	HIGH	0.0687	0.0028 - 1.6949	A114	HIGH	
SJ000285338-4	0.1386	0.0008 - 22.9222	A214	MED	0.1244	0.0676 - 0.2290	A214	MED	
SJ000285337-5	>5	NA	B342	INACTIVE	>5	NA	D555	INACTIVE	
SJ000285337-8	>5	NA	B140	INACTIVE	>5	NA	A241	INACTIVE	
SJ000285338-3	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE	
SJ000285343-2	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE	
SJ000285358-5	0.1905	0.1782 - 0.2036	A212	MED	0.19	0.1788 - 0.2020	A212	MED	
SJ000285363-5	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE	
SJ000285364-2	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE	
SJ000285365-1	2.2925	1.1080 - 4.7433	B321	WEAK	>5	NA	B334	INACTIVE	
SJ000285368-3	>5	NA	C555	WEAK	>5	NA	C555	WEAK	
SJ000285369-1	>5	NA	C555	WEAK	3.9654	NA	B313	WEAK	
SJ000285373-9	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE	
SJ000285375-2	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE	
SJ000285382-3	>5	NA	C555	INACTIVE	>5	NA	B241	INACTIVE	
SJ000285383-1	>5	NA	D555	INACTIVE	>5	NA	B241	INACTIVE	
SJ000285387-8	>5	NA	NC555	INACTIVE	>5	NA	C555	INACTIVE	
SJ000285396-2	>5	NA	D555	INACTIVE	>5	NA	C555	INACTIVE	
SJ000285400-2	>5	NA	B342	INACTIVE	>5	NA	B344	INACTIVE	
SJ000285410-5	0.0303	0.0268 - 0.0342	A113	HIGH	0.0276	0.0238 - 0.0319	B110	HIGH	
SJ000285413-1	0.9636	0.8101 - 1.1461	A214	MED	2.5855	NA	C555	WEAK	Differential activity within experimental error
SJ000285423-2	0.9398	0.8608 - 1.0260	A212	MED	0.9064	0.7444 - 1.1035	A212	MED	
SJ000285426-2	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE	
SJ000285431-2	>5	NA	D555	INACTIVE	>5	NA	NB142	INACTIVE	
SJ000285433-1	>5	NA	D555	INACTIVE	>5	NA	C555	INACTIVE	
SJ000285436-3	1.1776	1.1246 - 1.2303	A322	WEAK	1.183	1.1246 - 1.2445	A322	WEAK	ARTEMISININ
SJ000285439-2	>5	NA	C555	INACTIVE	>5	NA	B313	INACTIVE	
SJ000285440-2	2.6129	2.3056 - 2.9611	B312	WEAK	1.7108	1.0735 - 2.7263	B311	WEAK	
SJ000285442-1	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE	
SJ000285443-2	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE	
SJ000285445-2	>5	NA	C555	INACTIVE	>5	NA	B241	INACTIVE	
SJ000285450-2	>5	NA	C555	WEAK	>5	NA	C555	WEAK	Differential activity within experimental error
SJ000285451-3	1.5777	1.1606 - 2.1448	B321	WEAK	4.852	NA	C555	WEAK	
SJ000285452-1	<-0.1	NA	B110	HIGH	<-0.1	NA	B110	HIGH	
SJ000285452-5	<-0.1	NA	B110	HIGH	<-0.1	NA	B110	HIGH	
SJ000285453-3	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE	
SJ000285454-2	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE	
SJ000285460-1	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE	
SJ000285461-1	>5	NA	C555	INACTIVE	>5	NA	D555	INACTIVE	
SJ000285462-2	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE	
SJ000285465-2	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE	
SJ000285466-4	0.1742	0.1186 - 0.2559	A211	MED	0.1286	0.0965 - 0.1716	B110	MED	
SJ000285484-2	>5	NA	D555	INACTIVE	>5	NA	C555	INACTIVE	
SJ000285487-3	>5	NA	B312	INACTIVE	>5	NA	D555	INACTIVE	
SJ000285490-1	1.5512	1.5019 - 1.6022	A313	WEAK	>5	NA	B333	INACTIVE	
SJ000285502-5	>5	NA	B342	INACTIVE	>5	NA	C555	INACTIVE	
SJ000285504-2	>5	NA	C555	INACTIVE	>5	NA	A241	INACTIVE	
SJ000285506-2	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE	
SJ000285508-1	0.2163	0.1969 - 0.2377	A213	MED	0.2332	0.2081 - 0.2613	A213	MED	
SJ000285512-1	3.5581	3.5015 - 3.6156	B313	WEAK	4.287	NA	C555	WEAK	
SJ000285522-3	>5	NA	D555	INACTIVE	>5	NA			

SJ000285564-2	>5	NA	A241	INACTIVE	>5	NA	C555	INACTIVE
SJ000285569-2	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000285572-3	>5	NA	NC555	INACTIVE	>5	NA	D555	INACTIVE
SJ000285572-4	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000285574-1	>5	NA	D555	INACTIVE	>5	NA	C555	INACTIVE
SJ000285577-2	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000285584-1	>5	NA	C555	INACTIVE	>5	NA	B141	INACTIVE
SJ000285586-2	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000285587-1	0.2018	0.0239 - 1.7053	A211	MED	0.2793	0.0259 - 3.0073	A211	MED
SJ000285588-1	>5	NA	C555	WEAK	>5	NA	C555	WEAK
SJ000285591-1	>5	NA	C555	WEAK	3.2243	2.9841 - 3.4838	B312	WEAK
SJ000285592-5	>5	NA	C555	INACTIVE	>5	NA	B344	INACTIVE
SJ000285595-5	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000285608-2	>5	NA	A241	INACTIVE	>5	NA	B341	INACTIVE
SJ000285608-4	>5	NA	C555	INACTIVE	>5	NA	B341	INACTIVE
SJ000285610-5	>5	NA	C555	INACTIVE	>5	NA	B344	INACTIVE
SJ000285614-1	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000285618-1	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000285619-2	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000285625-5	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000285630-6	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000285635-2	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000285638-1	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000285643-1	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000285646-1	0.2119	0.1898 - 0.2367	A212	MED	0.1965	0.1746 - 0.2213	A212	MED
SJ000285651-2	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000285652-2	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000285655-1	>5	NA	B243	INACTIVE	>5	NA	B241	INACTIVE
SJ000285657-1	0.1253	0.1140 - 0.1378	A212	MED	0.125	0.1173 - 0.1324	A212	MED
SJ000285659-2	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000285664-3	>5	NA	C555	INACTIVE	>5	NA	D555	INACTIVE
SJ000285666-5	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000285667-2	>5	NA	D555	INACTIVE	>5	NA	C555	INACTIVE
SJ000285668-3	>5	NA	D555	INACTIVE	>5	NA	C555	INACTIVE
SJ000285671-2	>5	NA	D555	INACTIVE	>5	NA	NC555	INACTIVE
SJ000285674-3	>5	NA	A241	INACTIVE	>5	NA	B241	INACTIVE
SJ000285679-2	>5	NA	D555	INACTIVE	>5	NA	C555	INACTIVE
SJ000285683-5	>5	NA	D555	INACTIVE	>5	NA	C555	INACTIVE
SJ000285684-2	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000285686-5	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000285687-2	>5	NA	D555	INACTIVE	>5	NA	C555	INACTIVE
SJ000285688-2	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000285689-1	>5	NA	D555	INACTIVE	>5	NA	C555	INACTIVE
SJ000285692-2	0.0399	0.0322 - 0.0495	A112	HIGH	0.0358	0.0302 - 0.0424	A113	HIGH
SJ000285695-1	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000285696-1	>5	NA	D555	INACTIVE	>5	NA	C555	INACTIVE
SJ000285704-1	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000285710-2	1.4543	1.3330 - 1.5866	A312	WEAK	1.2069	1.1588 - 1.2569	A313	WEAK
SJ000285712-2	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000285713-5	>5	NA	C555	INACTIVE	>5	NA	B314	INACTIVE
SJ000285715-2	>5	NA	D555	INACTIVE	>5	NA	B241	INACTIVE
SJ000285718-2	2.9705	2.5382 - 3.4763	B322	WEAK	>5	NA	B322	INACTIVE
SJ000285725-3	>5	NA	C555	INACTIVE	>5	NA	B241	INACTIVE
SJ000285727-5	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000285728-2	0.0349	0.0313 - 0.0390	B110	HIGH	0.0363	0.0314 - 0.0420	A112	HIGH
SJ000285729-2	<0.1	0.0039 - 4.1318	B110	HIGH	0.0374	0.0102 - 0.1371	B110	HIGH
SJ000285740-1	>5	NA	NC555	INACTIVE	>5	NA	D555	INACTIVE
SJ000285742-3	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000285745-3	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000285747-3	0.1383	0.1316 - 0.1452	A213	MED	0.1465	0.1407 - 0.1526	A213	MED
SJ000285748-2	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000285750-1	>5	NA	D555	INACTIVE	>5	NA	C555	INACTIVE
SJ000285752-1	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000285761-1	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000285764-3	4.1895	NA	C555	WEAK	>5	NA	C555	WEAK
SJ000285766-1	0.0442	0.0401 - 0.0487	B110	HIGH	0.046	0.0427 - 0.0495	A113	HIGH
SJ000285767-2	0.0214	0.0184 - 0.0249	B110	HIGH	0.0255	0.0228 - 0.0285	A113	HIGH
SJ000285768-2	<0.1	NA	B110	HIGH	<0.1	NA	B110	HIGH
SJ000285769-1	0.0406	0.0358 - 0.0459	A112	HIGH	0.0434	0.0403 - 0.0468	A113	HIGH
SJ000285770-1	>5	NA	D555	INACTIVE	>5	NA	C555	INACTIVE
SJ000285778-1	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000285781-2	>5	NA	D555	INACTIVE	>5	NA	C555	INACTIVE
SJ000285783-2	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000285786-2	0.1307	0.0938 - 0.1821	A212	MED	0.1136	0.0838 - 0.1538	A213	MED
SJ000285787-2	0.8184	0.7921 - 0.8455	A213	MED	0.8671	0.8509 - 0.8837	A213	MED
SJ000285787-4	0.5572	0.5418 - 0.5729	A213	MED	0.5282	0.5051 - 0.5523	A213	MED
SJ000285790-1	2.5093	2.4752 - 2.5439	B313	WEAK	2.9331	2.8664 - 3.0014	B313	WEAK
SJ000285797-2	>5	NA	A243	INACTIVE	>5	NA	C555	INACTIVE
SJ000285801-2	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000285812-1	>5	NA	B344	INACTIVE	>5	NA	C555	INACTIVE
SJ000285814-1	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000285814-5	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000285818-2	>5	NA	D555	INACTIVE	>5	NA	C555	INACTIVE
SJ000285820-1	0.0416	0.0213 - 0.0814	A111	HIGH	0.0512	0.0395 - 0.0664	A112	HIGH
SJ000285827-2	1.5678	1.1031 - 2.2285	B311	WEAK	>5	NA	C555	WEAK
SJ000285831-3	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000285834-1	>5	NA	B241	INACTIVE	>5	NA	D555	INACTIVE
SJ000285835-2	>5	NA	C555	INACTIVE	>5	NA	B244	INACTIVE
SJ000285836-1	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000285837-1	>5	NA	B313	INACTIVE	>5	NA	C555	INACTIVE
SJ000285838-2	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000285840-2	0.9191	0.8184 - 1.0322	A214	MED	0.8819	0.8216 - 0.9466	A214	MED
SJ000285842-2	>5	NA	C555	INACTIVE	>5	NA	D555	INACTIVE
SJ000285845-5	>5	NA	B241	INACTIVE	>5	NA	C555	INACTIVE
SJ000285849-3	0.4435	0.3978 - 0.4944	A212	MED	0.4338	0.3884 - 0.4846	A212	MED
SJ000285858-5	>5	NA	NC555	INACTIVE	>5	NA	D555	INACTIVE
SJ000285860-2	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000285864-3	1.2127	1.1502 - 1.2785	A313	WEAK	1.3427	1.2789 - 1.4096	A313	WEAK
SJ000285866-2	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000285878-2	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000285879-3	>5	NA	D555	INACTIVE	>5	NA	C555	INACTIVE
SJ000285880-1	<0.1	NA	B110	HIGH	<0.1	NA	B110	HIGH
SJ000285881-1	3.1053	2.9783 - 3.2377	B312	WEAK	2.3759	2.3475 - 2.4045	B313	WEAK
SJ000285882-2	>5	NA	A242	INACTIVE	>5	NA	C555	INACTIVE
SJ000285885-5	>5	NA	NA241	INACTIVE	>5	NA	D555	INACTIVE
SJ000285887-3	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000285888-1	>5	NA	C555	WEAK	>5	NA	B313	WEAK
SJ000285890-3	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000285892-2	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000285903-2	>5	NA	D555	INACTIVE	>5	NA	NC555	INACTIVE
SJ000285909-2	>5	NA	A242	INACTIVE	>5	NA	D555	INACTIVE
SJ000285920-5	>5	NA	C555	INACTIVE	>5	NA	B241	INACTIVE
SJ000285922-4	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000285925-2	>5	NA	B241	INACTIVE	>5	NA	D555	INACTIVE
SJ000285935-1	>5	NA	C555	INACTIVE	>5	NA	B344	INACTIVE
SJ000285936-1	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000285940-2	>5	NA	A241	INACTIVE	>5	NA	C555	INACTIVE
SJ000285942-2	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000285950-1	>5	NA	C555	INACTIVE	>5	NA	D555	INACTIVE
SJ000285951-3	>5	NA	D555	INACTIVE	>5	NA	NC555	INACTIVE
SJ000285958-1	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000285959-1	>5	NA	C555	INACTIVE	>5	NA	D555	INACTIVE
SJ000285960-1	>5	NA	A241	INACTIVE	>5	NA	C555	INACTIVE
SJ000285965-1	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000285966-2	1.2967	0.7065 - 2.3798	A314	WEAK	2.0144	1.9973 - 2.0317	B312	WEAK
SJ000285967-1	>5	NA	B241	INACTIVE	>5	NA	C555	INACTIVE
SJ000285971-2	>5	NA	D555	INACTIVE	>5	NA	C555	INACTIVE
SJ000285972-1	4.2077	NA	C555	WEAK	2.4586	2.4189 - 2.4989	B312	WEAK
SJ000285973-2	0.1698	0.1572 - 0.1833	A212	MED	0.1623	0.1542 - 0.1709	A212	MED
SJ000285974-2	0.0861	0.0767 - 0.0967	A112	HIGH	0.0747	0.0627 - 0.0889	A112	HIGH
SJ000285978-2	0.2212	0.1336 - 0.3662	A211	MED	0.1961	0.1048 - 0.3669	A211	MED
SJ000285980-3	4.2933	NA	C555	WEAK	3.3236	3.1759 - 3.4782	B312	WEAK
SJ000285983-1	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000285987-2	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000285991-2	1.1053	0.7753 - 1.5756	B311	WEAK	0.7808	0.7463 - 0.8169	A212	MED
SJ000285995-1	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000285998-1	<0.1	NA	B110	HIGH	<0.1	NA	B110	HIGH
SJ000285999-1	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE

Differential activity within experimental error

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SJ000286003-2	0.7272	0.2263 - 2.3376	A211	MED	0.3626	0.3272 - 0.4017	A211	MED
SJ000286004-1	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000286006-3	<-0.1	NA	B110	HIGH	<-0.1	NA	B110	HIGH
SJ000286007-1	1.0062	0.8964 - 1.1294	A113	WEAK	0.9628	0.8199 - 1.1308	A212	MED
SJ000286009-1	>5	NA	C555	INACTIVE	>5	NA	D555	INACTIVE
SJ000286018-1	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000286024-2	>5	NA	D555	INACTIVE	>5	NA	C555	INACTIVE
SJ000286025-1	>5	NA	C555	INACTIVE	>5	NA	B332	INACTIVE
SJ000286030-1	<-0.1	NA	B110	HIGH	<-0.1	NA	B110	HIGH
SJ000286034-1	<-0.1	NA	B110	HIGH	<-0.1	NA	B110	HIGH
SJ000286035-1	>5	NA	D555	INACTIVE	>5	NA	B341	INACTIVE
SJ000286036-1	>5	NA	B113	INACTIVE	>5	NA	C555	INACTIVE
SJ000286037-1	>5	NA	D555	INACTIVE	>5	NA	C555	INACTIVE
SJ000286038-1	0.0931	0.0858 - 0.1010	A113	HIGH	0.0782	0.0723 - 0.0846	A113	HIGH
SJ000286038-4	0.0508	0.0445 - 0.0581	A113	HIGH	0.0578	0.0515 - 0.0649	A113	HIGH
SJ000286039-3	0.0238	0.0179 - 0.0317	B110	HIGH	0.021	0.0145 - 0.0303	B110	HIGH
SJ000286041-1	>5	NA	B141	INACTIVE	>5	NA	B341	INACTIVE
SJ000286044-1	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000286046-7	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000286046-9	>5	NA	C555	INACTIVE	>5	NA	A241	INACTIVE
SJ000286052-2	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000286053-3	>5	NA	B332	INACTIVE	>5	NA	B321	INACTIVE
SJ000286056-4	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000286057-2	>5	NA	C555	WEAK	2.4313	2.4033 - 2.4597	B312	WEAK
SJ000286063-1	>5	NA	C555	WEAK	>5	NA	C555	WEAK
SJ000286065-2	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000286075-1	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000286086-2	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000286093-1	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000286097-5	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000286098-2	>5	NA	D555	INACTIVE	>5	NA	C555	INACTIVE
SJ000286101-1	>5	NA	D555	INACTIVE	>5	NA	C555	INACTIVE
SJ000286109-1	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000286112-2	>5	NA	C555	WEAK	>5	NA	C555	WEAK
SJ000286113-2	>5	NA	C555	INACTIVE	>5	NA	D555	INACTIVE
SJ000286118-3	>5	NA	D555	INACTIVE	>5	NA	A344	INACTIVE
SJ000286121-3	>5	NA	C555	INACTIVE	>5	NA	D555	INACTIVE
SJ000286124-1	>5	NA	C555	INACTIVE	>5	NA	B341	INACTIVE
SJ000286127-5	>5	NA	D555	INACTIVE	>5	NA	C555	INACTIVE
SJ000286128-2	0.4695	0.3938 - 0.5597	A213	MED	0.4789	0.3911 - 0.5864	A213	MED
SJ000286133-5	>5	NA	C555	INACTIVE	>5	NA	B343	INACTIVE
SJ000286134-5	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000286142-2	0.4718	0.4465 - 0.4984	A213	MED	0.4944	0.4672 - 0.5231	A212	MED
SJ000286143-3	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000286144-3	1.2315	1.1244 - 1.3489	E312	WEAK	1.1138	0.9777 - 1.2695	B312	WEAK
SJ000286146-2	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000286151-3	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000286152-2	>5	NA	D555	INACTIVE	>5	NA	NC555	INACTIVE
SJ000286154-2	<-0.1	NA	B110	HIGH	<-0.1	NA	B110	HIGH
SJ000286155-5	>5	NA	B344	INACTIVE	>5	NA	C555	INACTIVE
SJ000286156-2	1.0381	0.8985 - 1.1994	A313	WEAK	1.0097	0.8164 - 1.2487	A313	WEAK
SJ000286159-2	0.2887	0.2448 - 0.3404	A212	MED	0.3018	0.2554 - 0.3567	A212	MED
SJ000286160-1	0.4594	0.3777 - 0.5586	A211	MED	0.3036	0.2841 - 0.3245	A213	MED
SJ000286162-2	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000286166-2	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000286172-2	>5	NA	D555	INACTIVE	>5	NA	C555	INACTIVE
SJ000286174-2	>5	NA	NC555	INACTIVE	>5	NA	D555	INACTIVE
SJ000286175-2	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000286178-2	>5	NA	D555	INACTIVE	>5	NA	C555	INACTIVE
SJ000286181-2	>5	NA	C555	INACTIVE	>5	NA	D555	INACTIVE
SJ000286185-2	>5	NA	C555	INACTIVE	>5	NA	D555	INACTIVE
SJ000286186-3	2.1652	2.3733 - 2.4579	E313	WEAK	2.5476	1.7581 - 3.3517	B314	WEAK
SJ000286187-2	0.9432	0.8364 - 1.0635	A213	MED	0.9116	0.8686 - 0.9568	A213	MED
SJ000286188-2	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000286191-2	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000286195-2	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000286199-2	>5	NA	D555	INACTIVE	>5	NA	B241	INACTIVE
SJ000286204-2	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000286205-2	<-0.1	NA	B110	HIGH	<-0.1	NA	B110	HIGH
SJ000286219-2	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000286217-2	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000286225-4	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000286229-4	>5	NA	A242	INACTIVE	>5	NA	A241	INACTIVE
SJ000286231-4	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000286236-2	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000286243-2	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000286248-1	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000286251-1	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000286267-1	>5	NA	C555	WEAK	4.6918	NA	C555	WEAK
SJ000286300-1	>5	NA	C555	WEAK	>5	NA	C555	WEAK
SJ000286312-1	>5	NA	C555	INACTIVE	>5	NA	B344	INACTIVE
SJ000286359-1	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000286366-2	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000286380-1	>5	NA	D555	INACTIVE	>5	NA	C555	INACTIVE
SJ000286381-1	0.1792	0.1603 - 0.2003	A222	MED	0.329	0.0988 - 1.0953	A234	MED
SJ000286382-1	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000286387-1	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000286389-1	>5	NA	C555	INACTIVE	>5	NA	D555	INACTIVE
SJ000286393-1	4.6178	NA	C555	WEAK	>5	NA	C555	INACTIVE
SJ000286395-1	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000286396-1	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000286398-1	2.0556	1.9918 - 2.1214	B313	WEAK	2.928	2.8242 - 3.0356	B312	WEAK
SJ000286406-1	0.9532	0.9390 - 0.9676	A213	MED	1.0358	0.9951 - 1.0783	A312	MED
SJ000286408-1	>5	NA	C555	INACTIVE	>5	NA	D555	INACTIVE
SJ000286413-1	>5	NA	C555	WEAK	3.4496	3.4248 - 3.4745	B313	WEAK
SJ000286415-1	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000286419-1	>5	NA	B241	INACTIVE	>5	NA	D555	INACTIVE
SJ000286421-1	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000286423-1	2.0321	1.9745 - 2.0914	B314	WEAK	2.0036	1.9296 - 2.0805	B314	WEAK
SJ000286424-1	0.314	0.1913 - 0.5154	A221	MED	0.7253	0.6854 - 0.7675	A212	MED
SJ000286430-1	>5	NA	C555	WEAK	>5	NA	C555	WEAK
SJ000286434-1	1.6319	1.6097 - 1.6545	B313	WEAK	1.4706	1.3664 - 1.5827	B312	WEAK
SJ000286436-1	<-0.1	NA	B110	HIGH	0.1213	0.1021 - 0.1440	B110	MED
SJ000286438-1	>5	NA	B321	INACTIVE	>5	NA	C555	INACTIVE
SJ000286446-1	>5	NA	C555	INACTIVE	>5	NA	D555	INACTIVE
SJ000286448-1	0.1447	0.1099 - 0.1906	A212	MED	0.1909	0.1448 - 0.2516	A212	MED
SJ000286450-1	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000286451-1	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000286453-1	>5	NA	D555	INACTIVE	>5	NA	C555	INACTIVE
SJ000286455-1	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000286458-1	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000286481-2	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000286496-1	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000286501-2	>5	NA	B314	INACTIVE	>5	NA	C555	INACTIVE
SJ000286511-1	>5	NA	A241	INACTIVE	>5	NA	C555	INACTIVE
SJ000286515-1	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000286515-2	0.0648	0.0536 - 0.0783	A113	HIGH	0.0651	0.0561 - 0.0754	A113	HIGH
SJ000286516-4	>5	NA	C555	INACTIVE	>5	NA	B313	INACTIVE
SJ000286520-3	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000286522-1	4.0011	NA	C555	WEAK	2.834	2.6811 - 2.9956	B312	WEAK
SJ000286525-1	>5	NA	B141	INACTIVE	>5	NA	C555	INACTIVE
SJ000286530-1	>5	NA	A241	INACTIVE	>5	NA	C555	INACTIVE
SJ000286533-1	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000286536-1	0.7071	0.6825 - 0.7325	A212	MED	0.6411	0.6184 - 0.6645	A212	MED
SJ000286537-1	0.3082	0.2752 - 0.3452	A221	MED	0.9009	0.7435 - 1.0917	A222	MED
SJ000286548-2	2.0459	1.9915 - 2.1018	B322	WEAK	2.2948	2.2635 - 2.3267	B312	WEAK
SJ000286550-2	>5	NA	NC541	INACTIVE	>5	NA	C555	INACTIVE
SJ000286552-1	0.0503	0.0427 - 0.0592	B110	HIGH	0.042	0.0353 - 0.0499	B110	HIGH
SJ000286565-1	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000286572-1	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000286576-1	0.8303	0.7823 - 0.8814	A212	MED	0.7585	0.7253 - 0.7932	A212	MED
SJ000286594-1	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000286616-1	>5	NA	A241	INACTIVE	>5	NA	C555	INACTIVE
SJ000286619-1	>5	NA	D555	INACTIVE	>5	NA	C555	INACTIVE
SJ000286644-1	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000286645-1	>5	NA	A241	INACTIVE	>5	NA	C555	INACTIVE
SJ000286646-1	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000286648-1	>5	NA	B141	INACTIVE	>5	NA	C555	INACTIVE

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SJ000286657-1	>5	NA	D555	INACTIVE	>5	NA	C555	INACTIVE
SJ000286658-1	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000286694-1	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000286706-1	3.054	2.3308 - 4.0015	B313	WEAK	2.6085	2.1808 - 3.1201	B314	WEAK
SJ000286710-1	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000286711-3	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000286715-2	1.9516	1.8621 - 2.0453	B312	WEAK	2.4069	2.3605 - 2.4543	B312	WEAK
SJ000286728-1	0.2169	0.1313 - 0.3584	A211	MED	0.3591	0.3283 - 0.3927	A212	MED
SJ000286729-1	>5	NA	D555	INACTIVE	>5	NA	B141	INACTIVE
SJ000286749-1	3.0281	2.9392 - 3.1196	B312	WEAK	2.4661	2.4380 - 2.4945	B312	WEAK
SJ000286751-1	0.2951	0.1510 - 0.5765	A212	MED	0.2616	0.1867 - 0.3665	A212	MED
SJ000286753-1	0.721	0.6923 - 0.7509	A213	MED	0.808	0.7737 - 0.8438	A213	MED
SJ000286767-1	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000286769-1	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000286772-1	>5	NA	B241	INACTIVE	>5	NA	C555	INACTIVE
SJ000286775-1	>5	NA	B314	INACTIVE	>5	NA	C555	INACTIVE
SJ000286776-1	>5	NA	NC555	INACTIVE	>5	NA	D555	INACTIVE
SJ000286780-1	>5	NA	A241	INACTIVE	>5	NA	C555	INACTIVE
SJ000286781-1	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000286782-1	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000286783-1	>5	NA	D555	INACTIVE	>5	NA	C555	INACTIVE
SJ000286797-1	>5	NA	C555	INACTIVE	>5	NA	B314	INACTIVE
SJ000286800-1	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000286801-1	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000286802-1	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000286804-2	>5	NA	D555	INACTIVE	>5	NA	C555	INACTIVE
SJ000286809-1	>5	NA	D555	INACTIVE	>5	NA	C555	INACTIVE
SJ000286813-1	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000286816-1	1.1216	0.5135 - 2.7190	E311	WEAK	2.1215	1.3636 - 3.3006	B311	WEAK
SJ000286821-1	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000286829-2	>5	NA	B241	INACTIVE	>5	NA	A241	INACTIVE
SJ000286830-1	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000286847-1	0.3333	0.3014 - 0.3686	A232	WEAK	0.6878	0.5576 - 0.8483	A233	WEAK
SJ000286853-1	>5	NA	B241	INACTIVE	>5	NA	A242	INACTIVE
SJ000286865-1	>5	NA	D555	INACTIVE	>5	NA	NA141	INACTIVE
SJ000286868-1	>5	NA	A241	INACTIVE	>5	NA	D555	INACTIVE
SJ000286877-1	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000286884-1	>5	NA	B314	INACTIVE	>5	NA	D555	INACTIVE
SJ000286890-1	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000286899-6	>5	NA	C555	INACTIVE	>5	NA	D555	INACTIVE
SJ000286902-2	0.1882	0.1689 - 0.2098	A212	MED	0.1934	0.1731 - 0.2160	A212	MED
SJ000286904-1	>5	NA	D555	INACTIVE	>5	NA	C555	INACTIVE
SJ000286906-1	>5	NA	A242	INACTIVE	>5	NA	D555	INACTIVE
SJ000286948-1	<-0.1	NA	B110	HIGH	<-0.1	NA	B110	HIGH
SJ000286950-4	2.7871	2.6267 - 2.9574	B312	WEAK	>5	NA	C555	INACTIVE
SJ000286959-1	>5	NA	C555	INACTIVE	>5	NA	D555	INACTIVE
SJ000286960-1	2.0573	2.0333 - 2.0817	B313	WEAK	1.9578	1.9446 - 1.9711	B313	WEAK
SJ000286962-1	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000286963-1	>5	NA	C555	INACTIVE	>5	NA	B334	INACTIVE
SJ000286965-1	<-0.1	NA	C555	HIGH	<-0.1	NA	C555	HIGH
SJ000286983-2	0.0323	0.0238 - 0.0438	B110	HIGH	0.0213	0.0159 - 0.0287	B110	HIGH
SJ000286986-1	>5	NA	A241	INACTIVE	>5	NA	C555	INACTIVE
SJ000286993-1	1.03	0.8297 - 1.2786	A312	WEAK	1.3651	1.1879 - 1.5686	B312	WEAK
SJ000287007-1	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000287016-1	<-0.1	NA	B110	HIGH	<-0.1	NA	B110	HIGH
SJ000287020-1	>5	NA	D555	INACTIVE	>5	NA	NB141	INACTIVE
SJ000287054-1	>5	NA	A241	INACTIVE	>5	NA	D555	INACTIVE
SJ000287055-3	1.4999	1.3631 - 1.6505	B312	WEAK	1.291	0.7246 - 2.3002	A324	WEAK
SJ000287058-1	>5	NA	B141	INACTIVE	>5	NA	A241	INACTIVE
SJ000287059-1	0.3416	0.3018 - 0.3866	A221	MED	2.4681	1.2594 - 4.8369	B311	WEAK
SJ000287062-1	>5	NA	C555	WEAK	2.3374	2.3101 - 2.3651	B313	WEAK
SJ000287073-2	>5	NA	A241	INACTIVE	>5	NA	B241	INACTIVE
SJ000287074-1	>5	NA	D555	INACTIVE	>5	NA	C555	INACTIVE
SJ000287076-4	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000287077-1	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000287078-1	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000287087-1	1.9311	1.8976 - 1.9652	B313	WEAK	1.9031	1.8028 - 2.0090	B313	WEAK
SJ000287088-2	<-0.1	NA	B110	HIGH	<-0.1	NA	A324	HIGH
SJ000287091-1	>5	NA	A233	INACTIVE	1.2339	0.8712 - 1.7477	B312	WEAK
SJ000287092-1	0.1214	0.0807 - 0.1827	A213	INACTIVE	0.1039	0.0706 - 0.1531	A212	MED
SJ000287098-4	>5	NA	B344	INACTIVE	>5	NA	C555	INACTIVE
SJ000287101-1	>5	NA	B341	INACTIVE	>5	NA	C555	INACTIVE
SJ000287102-1	0.0362	0.0314 - 0.0418	B110	HIGH	0.0365	0.0165 - 0.0806	B110	HIGH
SJ000287131-1	>5	NA	NB144	INACTIVE	>5	NA	C555	INACTIVE
SJ000287132-2	>5	NA	A141	INACTIVE	>5	NA	A241	INACTIVE
SJ000287133-1	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000287134-1	1.4028	1.1796 - 1.6684	B312	WEAK	1.2957	1.1132 - 1.5081	B312	WEAK
SJ000287136-1	>5	NA	D555	INACTIVE	>5	NA	B110	INACTIVE
SJ000287138-1	<-0.1	NA	B110	HIGH	<-0.1	NA	B110	HIGH
SJ000287139-1	>5	NA	C555	WEAK	>5	NA	C555	WEAK
SJ000287147-1	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000287149-1	<-1.0	NA	C555	MED	<-1.0	NA	C555	MED
SJ000287150-2	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000287152-1	0.3768	0.3328 - 0.4266	A212	MED	0.3899	0.3213 - 0.4731	A212	MED
SJ000287155-1	0.078	0.0708 - 0.0858	A112	HIGH	0.0669	0.0607 - 0.0738	A113	HIGH
SJ000287160-1	1.8786	1.8381 - 1.9199	B312	WEAK	2.2265	2.1794 - 2.2747	B312	WEAK
SJ000287177-1	>5	NA	C555	INACTIVE	>5	NA	D555	INACTIVE
SJ000287181-1	>5	NA	C555	INACTIVE	>5	NA	A241	INACTIVE
SJ000287182-5	>5	NA	C555	INACTIVE	>5	NA	D555	INACTIVE
SJ000287193-3	>5	NA	B314	INACTIVE	>5	NA	D555	INACTIVE
SJ000287195-1	<-0.1	NA	B110	HIGH	<-0.1	NA	B110	HIGH
SJ000287203-1	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000287206-1	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000287209-1	1.754	1.6223 - 1.8964	E312	WEAK	2.295	2.1725 - 2.4243	B314	WEAK
SJ000287215-1	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000287222-1	0.0618	0.0510 - 0.0749	A112	HIGH	0.0575	0.0479 - 0.0689	A112	HIGH
SJ000287228-1	2.055	2.0312 - 2.0791	B312	WEAK	>1.0	0.0010 - 699.2647	A214	WEAK
SJ000287229-1	>5	NA	B241	INACTIVE	>5	NA	D555	INACTIVE
SJ000287231-1	0.0909	0.0792 - 0.1044	A112	HIGH	0.0837	0.0727 - 0.0963	A112	HIGH
SJ000287238-3	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000287239-1	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000287245-3	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000287247-1	0.0671	0.0513 - 0.0878	B110	HIGH	0.0582	0.0412 - 0.0823	B110	HIGH
SJ000287256-3	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000287261-1	0.1832	0.1553 - 0.2162	A212	MED	0.1749	0.1482 - 0.2063	A212	MED
SJ000287270-1	0.4073	0.3609 - 0.4595	A212	MED	0.3365	0.2582 - 0.4385	A212	MED
SJ000287281-1	>5	NA	B343	INACTIVE	>5	NA	C555	INACTIVE
SJ000287282-1	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000287283-1	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000287295-1	<-0.1	NA	B110	HIGH	<-0.1	NA	B110	HIGH
SJ000287300-3	>5	NA	B344	INACTIVE	>5	NA	C555	INACTIVE
SJ000287313-1	>5	NA	B241	INACTIVE	>5	NA	C555	INACTIVE
SJ000287314-3	1.0237	NA	C555	WEAK	>5	NA	D555	INACTIVE
SJ000287317-4	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000287320-1	<-0.1	NA	B110	HIGH	<-0.1	NA	B110	HIGH
SJ000287329-1	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000287330-1	2.8722	2.6847 - 3.0727	B312	WEAK	2.0003	1.9539 - 2.0478	B312	WEAK
SJ000287331-1	0.2183	0.1905 - 0.2501	A212	MED	0.1906	0.1602 - 0.2267	A213	MED
SJ000287333-1	0.0632	0.0458 - 0.0619	A113	HIGH	0.0577	0.0502 - 0.0663	A112	HIGH
SJ000287335-1	>5	NA	A241	INACTIVE	>5	NA	B241	INACTIVE
SJ000287348-1	0.0807	0.0681 - 0.0956	A112	HIGH	0.0847	0.0705 - 0.1018	A112	HIGH
SJ000287350-1	>5	NA	B342	INACTIVE	>5	NA	C555	INACTIVE
SJ000287365-1	<-0.1	NA	B110	HIGH	<-0.1	NA	B110	HIGH
SJ000287368-1	1.0958	0.8387 - 1.4317	B311	WEAK	0.5999	0.5365 - 0.6708	A211	MED
SJ000287384-1	1.0372	0.9357 - 1.1498	A322	WEAK	1.4013	1.3316 - 1.4747	B312	WEAK
SJ000287393-1	0.0457	0.0382 - 0.0547	B110	HIGH	0.0452	0.0368 - 0.0554	B110	HIGH
SJ000287394-1	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000287395-1	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000287397-1	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000287398-1	>5	NA	D555	INACTIVE	>5	NA	C555	INACTIVE
SJ000287400-1	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000287409-2	>5	NA	D555	INACTIVE	>5	NA	C555	INACTIVE
SJ000287413-2	>5	NA	B343	INACTIVE	>5	NA	C555	INACTIVE
SJ000287428-1	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000287441-1	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000287448-1	4.723	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000287450-3	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000287457-1	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE

Differential activity within experimental error

Differential activity within experimental error

Differential activity within experimental error

SJ000287461-1	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000287462-1	>5	NA	B331	INACTIVE	>5	NA	B331	INACTIVE
SJ000287467-3	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000287484-1	>5	NA	B241	INACTIVE	>5	NA	C555	INACTIVE
SJ000287489-1	<-1	NA	B110	HIGH	<-1	NA	B110	HIGH
SJ000287490-1	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000287493-3	>5	NA	C555	INACTIVE	>5	NA	B343	INACTIVE
SJ000287506-1	>5	NA	B130	INACTIVE	>5	NA	B130	INACTIVE
SJ000287508-1	0.0223	0.0176 - 0.0283	B110	HIGH	0.0249	0.0201 - 0.0308	B110	HIGH
SJ000287523-1	0.088	0.0770 - 0.1006	B110	HIGH	0.0797	0.0702 - 0.0905	A112	HIGH
SJ000287543-1	>5	NA	NA141	INACTIVE	>5	NA	D555	INACTIVE
SJ000287544-1	>5	NA	C555	INACTIVE	>5	NA	B241	INACTIVE
SJ000287545-1	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000287547-3	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000287561-1	>5	NA	D555	INACTIVE	>5	NA	B241	INACTIVE
SJ000287562-1	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000287563-1	0.1431	0.1270 - 0.1612	A213	MED	0.1397	0.1150 - 0.1698	A213	MED
SJ000287568-1	0.0102	0.0086 - 0.0121	B110	HIGH	0.0069	0.0018 - 0.0267	B110	HIGH
SJ000287585-2	>5	NA	D555	INACTIVE	>5	NA	C555	INACTIVE
SJ000287590-2	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000287619-2	>5	NA	D555	INACTIVE	>5	NA	B341	INACTIVE
SJ000287619-2	>5	NA	D555	INACTIVE	>5	NA	C555	INACTIVE
SJ000287632-2	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000287647-2	>5	NA	B334	INACTIVE	>5	NA	C555	INACTIVE
SJ000287648-2	>5	NA	A241	INACTIVE	>5	NA	D555	INACTIVE
SJ000287657-2	<-1	NA	B110	HIGH	<-1	NA	B110	HIGH
SJ000287660-2	0.0659	0.0514 - 0.0847	A112	HIGH	0.0578	0.0446 - 0.0751	A112	HIGH
SJ000287663-2	2.8629	1.6576 - 4.2777	B314	WEAK	2.5982	2.5103 - 2.6892	B314	WEAK
SJ000287667-2	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000287668-2	>5	NA	C555	INACTIVE	>5	NA	A241	INACTIVE
SJ000287676-2	1.7578	1.6958 - 1.8221	B313	WEAK	1.7042	1.6139 - 1.7996	B322	WEAK
SJ000287677-2	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000287680-3	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000287682-2	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000287686-2	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000287690-2	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000287692-2	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000287693-2	>5	NA	A344	INACTIVE	>5	NA	B342	INACTIVE
SJ000287697-2	>5	NA	B130	INACTIVE	>5	NA	C555	INACTIVE
SJ000287703-2	>5	NA	B343	INACTIVE	>5	NA	B343	INACTIVE
SJ000287705-2	>5	NA	C555	INACTIVE	>5	NA	B333	INACTIVE
SJ000287706-2	>5	NA	B334	INACTIVE	>5	NA	C555	INACTIVE
SJ000287714-2	1.0777	0.3018 - 3.8488	A314	WEAK	1.692	1.0254 - 2.7920	B311	WEAK
SJ000287728-2	1.6312	1.5355 - 1.7329	B312	WEAK	1.6193	1.4530 - 1.8047	B312	WEAK
SJ000287730-2	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000287734-2	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000287737-2	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000287741-2	0.4672	0.3855 - 0.5661	A213	MED	0.4667	0.3819 - 0.5704	A213	MED
SJ000287744-2	>5	NA	D555	INACTIVE	>5	NA	C555	INACTIVE
SJ000287749-2	>5	NA	D555	INACTIVE	>5	NA	C555	INACTIVE
SJ000287750-2	>5	NA	B344	INACTIVE	>5	NA	C555	INACTIVE
SJ000287752-2	>5	NA	B342	INACTIVE	>5	NA	B341	INACTIVE
SJ000287756-2	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000287762-2	>5	NA	B241	INACTIVE	>5	NA	B244	INACTIVE
SJ000287767-2	>5	NA	D555	INACTIVE	>5	NA	B341	INACTIVE
SJ000287768-2	0.4478	0.4035 - 0.4969	A214	MED	0.4379	0.3997 - 0.4798	A213	MED
SJ000287769-2	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000287778-2	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000287799-2	<-1	NA	B110	HIGH	<-1	NA	B110	HIGH
SJ000287810-2	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000287813-2	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000287814-2	>5	NA	B314	INACTIVE	>5	NA	C555	INACTIVE
SJ000287821-2	>5	NA	C555	INACTIVE	>5	NA	B313	INACTIVE
SJ000287827-2	0.0471	0.0338 - 0.0657	B110	HIGH	0.0435	0.0345 - 0.0548	A112	HIGH
SJ000287837-2	>5	NA	B341	INACTIVE	>5	NA	C555	INACTIVE
SJ000287841-2	>5	NA	B342	INACTIVE	>5	NA	C555	INACTIVE
SJ000287864-2	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000287868-2	>5	NA	B332	INACTIVE	2.2448	2.1303 - 2.3655	B314	WEAK
SJ000287875-2	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000287879-2	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000287882-2	>5	NA	D555	INACTIVE	>5	NA	NC555	INACTIVE
SJ000287889-2	>5	NA	B334	INACTIVE	>5	NA	C555	INACTIVE
SJ000287891-2	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000287899-2	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000287901-2	>5	NA	B342	INACTIVE	>5	NA	B332	INACTIVE
SJ000287902-2	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000287925-2	<-1	NA	B110	HIGH	<-1	NA	B110	HIGH
SJ000287942-2	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000287955-2	>5	NA	B244	INACTIVE	>5	NA	A241	INACTIVE
SJ000287956-2	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000287970-2	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000287972-2	>5	NA	C555	INACTIVE	>5	NA	B241	INACTIVE
SJ000287975-2	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000287985-2	>5	NA	C555	INACTIVE	>5	NA	B344	INACTIVE
SJ000287990-2	2.2004	2.1724 - 2.2288	B313	WEAK	2.2877	2.2204 - 2.3570	B313	WEAK
SJ000287995-2	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000288002-2	2.0583	1.9724 - 2.0387	B313	WEAK	2.0943	2.0403 - 2.1498	B314	WEAK
SJ000288007-2	>5	NA	C555	INACTIVE	>5	NA	B241	INACTIVE
SJ000288017-2	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000288020-2	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000288025-2	>5	NA	B342	INACTIVE	>5	NA	C555	INACTIVE
SJ000288026-2	>5	NA	NB241	INACTIVE	>5	NA	D555	INACTIVE
SJ000288030-2	>5	NA	C555	INACTIVE	>5	NA	D555	INACTIVE
SJ000288031-2	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000288034-2	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000288037-2	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000288041-2	>5	NA	D555	INACTIVE	>5	NA	C555	INACTIVE
SJ000288052-2	>5	NA	D555	INACTIVE	>5	NA	C555	INACTIVE
SJ000288058-2	>5	NA	NA141	INACTIVE	>5	NA	D555	INACTIVE
SJ000288059-2	>5	NA	D555	INACTIVE	>5	NA	C555	INACTIVE
SJ000288063-2	1.202	1.0820 - 1.3352	B322	WEAK	>5	NA	A342	INACTIVE
SJ000288073-2	>5	NA	C555	INACTIVE	>5	NA	D555	INACTIVE
SJ000288074-2	>5	NA	A241	INACTIVE	>5	NA	C555	INACTIVE
SJ000288081-2	>5	NA	D555	INACTIVE	>5	NA	C555	INACTIVE
SJ000288084-2	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000288092-2	>5	NA	NB144	INACTIVE	>5	NA	D555	INACTIVE
SJ000288093-2	>5	NA	NB242	INACTIVE	>5	NA	D555	INACTIVE
SJ000288098-2	>5	NA	C555	INACTIVE	>5	NA	B342	INACTIVE
SJ000288099-2	>5	NA	D555	INACTIVE	>5	NA	C555	INACTIVE
SJ000288114-2	>5	NA	D555	INACTIVE	>5	NA	B241	INACTIVE
SJ000288126-2	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000288139-2	>5	NA	C555	WEAK	2.2411	2.2103 - 2.2723	B313	WEAK
SJ000288140-2	>5	NA	C555	INACTIVE	>5	NA	B314	INACTIVE
SJ000288147-2	1.0095	0.6912 - 1.4743	A314	WEAK	0.9875	0.7673 - 1.2708	A214	MED
SJ000288150-2	>5	NA	B331	INACTIVE	>5	NA	B331	INACTIVE
SJ000288156-2	>5	NA	C555	INACTIVE	>5	NA	B323	INACTIVE
SJ000288159-2	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000288163-2	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000288173-2	>5	NA	C555	WEAK	1.4271	1.2596 - 1.6168	B311	WEAK
SJ000288175-2	>5	NA	NC555	INACTIVE	>5	NA	D555	INACTIVE
SJ000288176-2	>5	NA	C555	INACTIVE	>5	NA	B333	INACTIVE
SJ000288181-2	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000288182-2	>5	NA	B241	INACTIVE	>5	NA	A241	INACTIVE
SJ000288186-2	>5	NA	A141	INACTIVE	>5	NA	C555	INACTIVE
SJ000288194-2	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000288209-2	>5	NA	D555	INACTIVE	>5	NA	A241	INACTIVE
SJ000288210-2	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000288211-2	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000288216-2	>5	NA	B141	INACTIVE	>5	NA	C555	INACTIVE
SJ000288219-2	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000288224-2	>5	NA	C555	INACTIVE	>5	NA	D555	INACTIVE
SJ000288226-2	>5	NA	C555	INACTIVE	>5	NA	B242	INACTIVE
SJ000288238-2	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE
SJ000288244-2	0.1045	0.0914 - 0.1194	A213	MED	0.1311	0.0021 - 8.2851	A214	MED
SJ000288246-2	>5	NA	NB141	INACTIVE	>5	NA	D555	INACTIVE
SJ000288249-2	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE
SJ000288262-2	>5	NA	C555	INACTIVE	4.0527	NA	C555	WEAK
SJ000288270-2	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE

Significant shift in efficacy, not potency

Significant shift in efficacy, not potency

Differential activity within experimental error

Differential activity within experimental error

SJ000288274-2	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE	
SJ000288278-2	0.0149	0.0104 - 0.0214	B110	HIGH	0.0159	0.0113 - 0.0225	B110	HIGH	
SJ000288284-2	>5	NA	D555	INACTIVE	>5	NA	C555	INACTIVE	
SJ000288304-1	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE	
SJ000288305-1	0.306	0.1694 - 0.5530	A211	MED	0.171	0.0776 - 0.3768	A211	MED	
SJ000288308-1	>5	NA	B341	INACTIVE	>5	NA	B344	INACTIVE	
SJ000288312-1	>5	NA	D555	INACTIVE	>5	NA	C555	INACTIVE	
SJ000288313-1	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE	
SJ000288316-1	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE	
SJ000288318-1	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE	
SJ000288320-1	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE	
SJ000288325-1	>5	NA	B333	INACTIVE	4.198	4.0769 - 4.3227	B313	WEAK	Differential activity within experimental error
SJ000288326-1	>5	NA	A241	INACTIVE	>5	NA	B341	INACTIVE	
SJ000288327-1	>5	NA	D555	INACTIVE	>5	NA	D555	INACTIVE	
SJ000288328-1	>5	NA	C555	INACTIVE	>5	NA	C555	INACTIVE	
SJ000518967-1	0.3177	0.2999-0.3357	A212	MED	0.3133	0.2964-0.3311	A212	MED	DIHYDROARTEMISININ
SJ000518972-1	0.3581	0.3459-0.3639	A212	MED	0.3311	0.3206-0.3428	A212	MED	ARTESUNATE

