Supplementary Information

Recording gene expression order in DNA by CRISPR addition of retron barcodes

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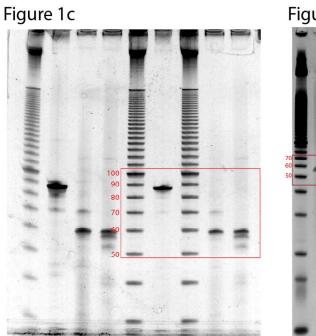
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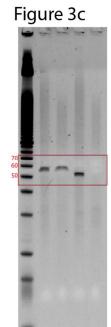
This PDF file includes:

Supplementary Figure 1, Uncropped gels

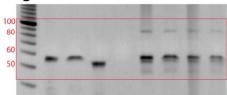
Supplementary Tables 1 to 4

Supplemental Figure 1, Uncropped gels from main figures.









Supplementary Table 1, Statistics

Panel	Biological Replicates	Comparison	Test	P value	P value summ
e	Replicates 3	v32 with RT versus without RT	unpaired t test	<0.0001	P value summ
e	3	v35 with RT versus without RT	unpaired t test	0.0001	***
f	5	a1/a2 length: 12 versus 27	unpaired t test	0.0082	**
		Figure 2			
Panel	Biological Replicates	Comparison	Test	P value	P value summ
b	3	Non-retron derived spacers: effect of condition	one-way ANOVA	0.5707	r value sum
2	5	Retron derived spacers: effect of condition	one-way ANOVA	0.0004	***
		Follow-up: v35 "A" with RT versus without RT	Dunnett's multiple comparisons test (corrected)	<0.0001	****
		Follow-up: v35 "A" versus "B" 1	Dunnett's multiple comparisons test (corrected)	0.029	+
		Follow-up: v35 "A" versus "B" 2	Dunnett's multiple comparisons test (corrected)	0.0229	*
		Follow-up: v35 "A" versus "B" 3 Follow-up: v35 "A" versus "B" 4	Dunnett's multiple comparisons test (corrected) Dunnett's multiple comparisons test (corrected)	0.0119 0.0357	
		Follow-up: v35 "A" versus "B" 5	Dunnett's multiple comparisons test (corrected)	0.0287	
		Follow-up: v35 "A" versus "B" 6	Dunnett's multiple comparisons test (corrected)	0.2986	ns
		Follow-up: v35 "A" versus "B" 7	Dunnett's multiple comparisons test (corrected)	0.086	ns
		Follow-up: v35 "A" versus "B" 8	Dunnett's multiple comparisons test (corrected)	0.0007	***
	Biological	Figure 3			
anel	Replicates	Comparison	Test	P value	P value sum
b	4-5	Effect of source (retron versus oligo)	two-way ANOVA	< 0.0001	****
		Effect of location (LP/M/LD)	two-way ANOVA	<0.0001	****
		Follow-up: retron versus oligo, LP +/- ratio	Sidak's multiple comparisons test (corrected)	>0.9999	ns
		Follow-up: retron versus oligo, M +/- ratio	Sidak's multiple comparisons test (corrected)	0.9985	ns ****
d	2-5	Follow-up: retron versus oligo, M +/- ratio Effect of source (retron versus oligo)	Sidak's multiple comparisons test (corrected) two-way ANOVA	<0.0001 0.0439	*
	2-5 comparison	Effect of location (LP/M/LD)	two-way ANOVA	< 0.0001	****
	to oligo in	Follow-up: retron versus oligo, LP +/- ratio	Sidak's multiple comparisons test (corrected)	>0.9999	ns
	panel b	Follow-up: retron versus oligo, M +/- ratio	Sidak's multiple comparisons test (corrected)	>0.9999	ns
		Follow-up: retron versus oligo, M +/- ratio	Sidak's multiple comparisons test (corrected)	0.005	**
e	2-5	Effect of condition	one-way ANOVA	0.33	ns
		Follow-up: oligo versus retron -DBR1 Follow-up: oligo versus retron +DBR1	Dunnett's multiple comparisons test (corrected) Dunnett's multiple comparisons test (corrected)	0.2858	ns ns
g	3	Effect of source (retron versus oligo)	two-way ANOVA	0.0394	*
0		Effect of location (LP/M/LD)	two-way ANOVA	0.0083	**
		Follow-up: retron versus oligo, LP +/- ratio	Sidak's multiple comparisons test (corrected)	>0.9999	ns
		Follow up: retron versus oligo, M +/ ratio	Sidak's multiple comparisons test (corrected)	>0.9999	ns
		Follow-up: retron versus oligo, M +/- ratio	Sidak's multiple comparisons test (corrected)	0.0053	**
1	3	Eco4 with RT versus without RT Figure 4	unpaired t test	0.0197	
_	Biological				
anel	Replicates	Comparison	Test	P value	P value sum
b	4	"A" (aTc) versus "B" (Cho)	unpaired t test	0.2704	ns
с	4	Effect of Time on Retron-Derived Acquisition Rate (overall)	two-way ANOVA	0.4172	ns
		Effect of Source on Retron-Derived Acquisition Rate (overall) Effect of Interaction Between Time and Source on Retron-Derived Acquisition Rate	two-way ANOVA two-way ANOVA	0.9312 0.0007	ns ***
		Follow-up: Rate of "A" Acquisitions, 24h versus 48h	Sidak's multiple comparisons test (corrected)	0.005	**
		Follow-up: Rate of "B" Acquisitions, 24h versus 48h	Sidak's multiple comparisons test (corrected)	0.0445	*
d	4	Effect of Time on Retron-Derived Acquisition Rate (overall)	two-way ANOVA	0.0002	***
		Effect of Source on Retron-Derived Acquisition Rate (overall)	two-way ANOVA	>0.9999	ns ****
		Effect of Interaction Between Time and Source on Retron-Derived Acquisition Rate Follow-up: Rate of "A" Acquisitions, 24h versus 48h	two-way ANOVA Sidak's multiple comparisons test (corrected)	<0.0001 <0.0001	
		Follow-up: Rate of "B" Acquisitions, 24h versus 48h	Sidak's multiple comparisons test (corrected)	0.888	ns
e	4	Effect of Time on Non-Retron-Derived Acquisition Rate (overall)	two-way ANOVA	0.0633	ns
			two-way ANOVA		ns
		Effect of Inducer Order on Non-Retron-Derived Acquisition Rate (overall)		>0.9999	
		Effect of Interaction Between Time and Order on Non-Retron-Derived Acquisition Rate	two-way ANOVA	0.5455	ns
		Effect of Interaction Between Time and Order on Non-Retron-Derived Acquisition Rate Follow-up: Rate of "N" Acquisitions A->B, 24h versus 48h	Sidak's multiple comparisons test (corrected)	0.5455 0.1602	ns
σ		Effect of Interaction Between Time and Order on Non-Retron-Derived Acquisition Rate Follow-up: Rate of "N" Acquisitions R->B, 24h versus 48h Follow-up: Rate of "N" Acquisitions R->A, 24h versus 48h	Sidak's multiple comparisons test (corrected) Sidak's multiple comparisons test (corrected)	0.5455 0.1602 0.5562	
	4	Effect of Interaction Between Time and Order on Non-Retron-Derived Acquisition Rate Follow-up: Rate of "N" Acquisitions A->B, 24h versus 48h	Sidak's multiple comparisons test (corrected) Sidak's multiple comparisons test (corrected) unpaired t test	0.5455 0.1602 0.5562 <0.0001	ns ns
		Effect of Interaction Between Time and Order on Non-Retron-Derived Acquisition Rate Follow-up: Rate of "N" Acquisitions A->B, 24h versus 48h Follow-up: Rate of "N" Acquisitions R->A, 24h versus 48h "A" (Sal) versus "B" (arC)	Sidak's multiple comparisons test (corrected) Sidak's multiple comparisons test (corrected)	0.5455 0.1602 0.5562	ns ns ****
		Effect of Interaction Between Time and Order on Non-Retron-Derived Acquisition Rate Follow-up: Rate of "N" Acquisitions A->8, 24h versus 48h Follow-up: Rate of "N" Acquisitions Ra-9, 24h versus 48h "A" (Sal) versus "B" (aTc) Effect of Time on Retron-Derived Acquisition Rate (overall) Effect of Source on Retron-Derived Acquisition Rate (overall) Effect of Interaction Between Time and Source on Retron-Derived Acquisition Rate (overall)	Sidak's multiple comparisons test (corrected) Sidak's multiple comparisons test (corrected) unpaired test two-way ANOVA two-way ANOVA two-way ANOVA	0.5455 0.1602 0.5562 <0.0001 0.0003 >0.9999 0.005	ns ns ****
		Effect of Interaction Between Time and Order on Non-Retron-Derived Acquisition Rate Follow-up: Rate of "N" Acquisitions A>8, 24h versus 48h Follow-up: Rate of "N" Acquisitions Rate, 24h versus 48h "A" (Sal) versus 'B" (a)(C) Effect of Time on Retron-Derived Acquisition Rate (overall) Effect of Source on Retron-Derived Acquisition Rate (overall) Effect of Source on Retron-Derived Acquisition Rate (overall) Effect of Interaction Between Time and Source on Retron-Derived Acquisition Rate Follow-up: Rate of "A" Acquisitions, 24h versus 48h	Sidak's multiple comparisons test (corrected) Sidak's multiple comparisons test (corrected) uppaired test two-way ANOVA two-way ANOVA two-way ANOVA Sidak's multiple comparisons test (corrected)	0.5455 0.1602 0.5562 <0.0001 0.0003 >0.9999 0.005 0.3036	ns **** *** ns ** ns
h	3	Effect of Interaction Between Time and Order on Non-Retron-Derived Acquisition Rate Follow-up: Rate of "N" Acquisitions A->B, 24h versus 48h Follow-up: Rate of "N" Acquisitions Ra->A, 24h versus 48h "A" (Sal) versus "B" (ATC) Effect of Time on Retron-Derived Acquisition Rate (overall) Effect of Since on Retron-Derived Acquisition Rate (overall) Effect of Interaction Between Time and Source on Retron-Derived Acquisition Rate Follow-up: Rate of "A" Acquisitions, 24h versus 48h Follow-up: Rate of "B" Acquisitions, 24h versus 48h	Sidak's multiple comparisons test (corrected) Sidak's multiple comparisons test (corrected) unpaired t test two-way ANOVA two-way ANOVA Sidak's multiple comparisons test (corrected) Sidak's multiple comparisons test (corrected)	0.5455 0.1602 0.5562 <0.0001 0.0003 >0.9999 0.005 0.3036 0.0002	ns ns **** *** ns **
h		Effect of Interaction Between Time and Order on Non-Retron-Derived Acquisition Rate Follow-up: Rate of "N" Acquisitions A->8, 24h versus 48h Follow-up: Rate of "N" Acquisitions A->0, 24h versus 48h "A" (Sal) versus "B" (aTc) Effect of Time on Retron-Derived Acquisition Rate (overall) Effect of Source on Retron-Derived Acquisition Rate (overall) Effect of Interaction Between Time and Source on Retron-Derived Acquisition Rate Follow-up: Rate of "A" Acquisitions, 24h versus 48h Follow-up: Rate of "B" Acquisitions, 24h versus 48h Effect of Time on Retron-Derived Acquisition Rate (overall)	Sidak's multiple comparisons test (corrected) Sidak's multiple comparisons test (corrected) unpaired test two-way ANOVA two-way ANOVA two-way ANOVA Sidak's multiple comparisons test (corrected) Sidak's multiple comparisons test (corrected) Sidak's multiple comparisons test (corrected)	0.5455 0.1602 0.5562 <0.0001 0.0003 >0.9999 0.005 0.3036 0.0002 0.0473	ns ns **** ns ** ns ***
h	3	Effect of Interaction Between Time and Order on Non-Retron-Derived Acquisition Rate Follow-up: Rate of "N" Acquisitions A->B, 24h versus 48h Follow-up: Rate of "N" Acquisitions Ra->A, 24h versus 48h "A" (Sal) versus "B" (ATC) Effect of Time on Retron-Derived Acquisition Rate (overall) Effect of Since on Retron-Derived Acquisition Rate (overall) Effect of Interaction Between Time and Source on Retron-Derived Acquisition Rate Follow-up: Rate of "A" Acquisitions, 24h versus 48h Follow-up: Rate of "B" Acquisitions, 24h versus 48h	Sidak's multiple comparisons test (corrected) Sidak's multiple comparisons test (corrected) unpaired test two-way ANOVA two-way ANOVA Sidak's multiple comparisons test (corrected) Sidak's multiple comparisons test (corrected) two-way ANOVA two-way ANOVA	0.5455 0.1602 0.5562 <0.0001 0.0003 >0.9999 0.005 0.3036 0.0002 0.0473 0.392	ns **** *** ns ** NS ***
h	3	Effect of Interaction Between Time and Order on Non-Retron-Derived Acquisition Rate Follow-up: Rate of "N" Acquisitions A:>8, 24h versus 48h Follow-up: Rate of "N" Acquisitions Rate, 24h versus 48h "A" (Sal) versus 'B" (Arc) Effect of Time on Retron-Derived Acquisition Rate (overall) Effect of Source on Retron-Derived Acquisition Rate (overall) Effect of Interaction Between Time and Source on Retron-Derived Acquisition Rate Follow-up: Rate of "A" Acquisitions, 24h versus 48h Eollow-up: Rate of "B" Acquisitions, 24h versus 48h Effect of Time on Retron-Derived Acquisition Rate (overall) Effect of Time on Retron-Derived Acquisition Rate (overall) Effect of Time on Retron-Derived Acquisition Rate (overall) Effect of Time on Retron-Derived Acquisition Rate (overall)	Sidak's multiple comparisons test (corrected) Sidak's multiple comparisons test (corrected) unpaired test two-way ANOVA two-way ANOVA two-way ANOVA Sidak's multiple comparisons test (corrected) Sidak's multiple comparisons test (corrected) Sidak's multiple comparisons test (corrected)	0.5455 0.1602 0.5562 <0.0001 0.0003 >0.9999 0.005 0.3036 0.0002 0.0473	ns ns **** ns ** ns ***
h i	3	Effect of Interaction Between Time and Order on Non-Retron-Derived Acquisition Rate Follow-up: Rate of "N" Acquisitions A:>8, 24h versus 48h Follow-up: Rate of "N" Acquisitions Rate, 24h versus 48h "A" (Sal) versus 'B" (aTc) Effect of Time on Retron-Derived Acquisition Rate (overall) Effect of Interaction Between Time and Source on Retron-Derived Acquisition Rate Follow-up: Rate of "A" Acquisitions, 24h versus 48h Eollow-up: Rate of "B" Acquisitions, 24h versus 48h Effect of Time on Retron-Derived Acquisitions Rate (overall) Effect of Time on Retron-Derived Acquisitions, 24h versus 48h Effect of Time on Retron-Derived Acquisitions, 24h versus 48h Effect of Time on Retron-Derived Acquisition Rate (overall) Effect of Source on Retron-Derived Acquisition Rate (overall) Effect of Interaction Between Time and Source on Retron-Derived Acquisition Rate Follow-up: Rate of "A" Acquisitions, 24h versus 48h Enlow-up: Rate of "A" Acquisitions, 24h versus 48h Enlow-up: Rate of "A" Acquisitions, 24h versus 48h	Sidak's multiple comparisons test (corrected) Sidak's multiple comparisons test (corrected) unpaired t test two-way ANOVA two-way ANOVA Sidak's multiple comparisons test (corrected) Sidak's multiple comparisons test (corrected) two-way ANOVA two-way ANOVA Sidak's multiple comparisons test (corrected) Sidak's multiple comparisons test (corrected)	0.5455 0.1602 0.5562 <0.0001 0.0003 >0.9999 0.005 0.3036 0.0002 0.0473 0.392 0.0002 0.1003 0.0004	ns **** *** ** ** ** ***
h	3	Effect of Interaction Between Time and Order on Non-Retron-Derived Acquisition Rate Follow-up: Rate of "N" Acquisitions A->B, 24h versus 48h Follow-up: Rate of "N" Acquisitions Ra->A, 24h versus 48h "A" (Sal) versus "B" (aTc) Effect of Time on Retron-Derived Acquisition Rate (overall) Effect of Surce on Retron-Derived Acquisition Rate (overall) Effect of Interaction Between Time and Source on Retron-Derived Acquisition Rate Follow-up: Rate of "A" Acquisitions, 24h versus 48h Follow-up: Rate of "A" Acquisitions, 24h versus 48h Effect of Time on Retron-Derived Acquisition Rate (overall) Effect of Time on Retron-Derived Acquisition Rate (overall) Effect of Time on Retron-Derived Acquisition Rate (overall) Effect of Source on Retron-Derived Acquisition Rate (overall) Effect of Interaction Between Time and Source on Retron-Derived Acquisition Rate Follow-up: Rate of "A" Acquisitions, 24h versus 48h Effect of Interaction Between Time and Source on Retron-Derived Acquisition Rate Follow-up: Rate of "A" Acquisitions, 24h versus 48h Enlow-up: Rate of "A" Acquisitions, 24h versus 48h Construction Retron-Derived Acquisition Rate (overall)	Sidak's multiple comparisons test (corrected) Sidak's multiple comparisons test (corrected) unpaired test two-way ANOVA two-way ANOVA Sidak's multiple comparisons test (corrected) Sidak's multiple comparisons test (corrected) two-way ANOVA two-way ANOVA Sidak's multiple comparisons test (corrected) Sidak's multiple comparisons test (corrected) Sidak's multiple comparisons test (corrected) Sidak's multiple comparisons test (corrected) Sidak's multiple comparisons test (corrected)	0.5455 0.1602 0.5562 0.0001 0.0003 >0.9999 0.005 0.3036 0.0002 0.0473 0.392 0.0002 0.1003 0.1003 0.0004 0.1855	ns **** ns *** *** *** *** *** *** *** *
gi	3	Effect of Interaction Between Time and Order on Non-Retron-Derived Acquisition Rate Follow-up: Rate of "N" Acquisitions A>8, 24h versus 48h Follow-up: Rate of "N" Acquisitions R>-8, 24h versus 48h "A" (Sal) versus 'B" (Arc) Effect of Time on Retron-Derived Acquisition Rate (overall) Effect of Source on Retron-Derived Acquisition Rate (overall) Effect of Interaction Between Time and Source on Retron-Derived Acquisition Rate Follow-up: Rate of "A" Acquisitions, 24h versus 48h Follow-up: Rate of "B" Acquisitions, 24h versus 48h Effect of Time on Retron-Derived Acquisition Rate (overall) Effect of Source on Retron-Derived Acquisition Rate (overall) Effect of Interaction Between Time and Source on Retron-Derived Acquisition Rate Follow-up: Rate of "B" Acquisitions, 24h versus 48h Effect of Interaction Between Time and Source on Retron-Derived Acquisition Rate (overall) Effect of Interaction Retron-Derived Acquisition Rate (overall) Effect of Time on Non-Retron-Derived Acquisition Rate (overall) Effect of Intue or Non-Retron-Derived Acquisition Rate (overall) Effect of Intue on Non-Retron-Derived Acquisition Rate (overall) Effect of Intue on Non-Retron-Derived Acquisition Rate (overall)	Sidak's multiple comparisons test (corrected) Sidak's multiple comparisons test (corrected) unpaired test two-way ANOVA two-way ANOVA Sidak's multiple comparisons test (corrected) Sidak's multiple comparisons test (corrected) two-way ANOVA two-way ANOVA two-way ANOVA Sidak's multiple comparisons test (corrected) Sidak's multiple comparisons test (corrected) Sidak's multiple comparisons test (corrected) two-way ANOVA two-way ANOVA	0.5455 0.1602 0.5567 <0.0001 0.0003 >0.9999 0.005 0.3036 0.0005 0.3036 0.00473 0.392 0.00473 0.392 0.0002 0.1003 0.1855 0.5823	ns **** ns ** ns *** ns *** ns *** ns *** ns ***
h i	3	Effect of Interaction Between Time and Order on Non-Retron-Derived Acquisition Rate Follow-up: Rate of "N" Acquisitions A:-8, 24h versus 48h Follow-up: Rate of "N" Acquisitions Ra-2, 24h versus 48h "A" (5al) versus "B" (arc) Effect of Time on Retron-Derived Acquisition Rate (overall) Effect of Source on Retron-Derived Acquisition Rate (overall) Effect of Interaction Between Time and Source on Retron-Derived Acquisition Rate Follow-up: Rate of "A" Acquisitions, 24h versus 48h Eollow-up: Rate of "B" Acquisitions, 24h versus 48h Effect of Time on Retron-Derived Acquisition Rate (overall) Effect of Time on Retron-Derived Acquisition Rate (overall) Effect of Time on Retron-Derived Acquisition Rate (overall) Effect of Interaction Between Time and Source on Retron-Derived Acquisition Rate Follow-up: Rate of "A" Acquisitions, 24h versus 48h Eollow-up: Rate of "A" Acquisitions, 24h versus 48h Effect of Time on Non-Retron-Derived Acquisition Rate (overall) Effect of Interaction Between Time and Order on Non-Retron-Derived Acquisition Rate (overall)	Sidak's multiple comparisons test (corrected) Sidak's multiple comparisons test (corrected) unpaired test two-way ANOVA two-way ANOVA Sidak's multiple comparisons test (corrected) Sidak's multiple comparisons test (corrected) two-way ANOVA two-way ANOVA sidak's multiple comparisons test (corrected) Sidak's multiple comparisons test (corrected) two-way ANOVA two-way ANOVA two-way ANOVA	0.5455 0.1602 0.5562 0.0003 0.0999 0.005 0.3036 0.0002 0.0473 0.3036 0.0002 0.0473 0.3036 0.0002 0.1003 0.1003 0.1003 0.1003 0.1003 0.5823 0.5823	ns *** ns *** ns *** *** ns *** ns *** ***
h i	3	Effect of Interaction Between Time and Order on Non-Retron-Derived Acquisition Rate Follow-up: Rate of "N" Acquisitions A>8, 24h versus 48h Follow-up: Rate of "N" Acquisitions R>-8, 24h versus 48h "A" (Sal) versus 'B" (Arc) Effect of Time on Retron-Derived Acquisition Rate (overall) Effect of Source on Retron-Derived Acquisition Rate (overall) Effect of Interaction Between Time and Source on Retron-Derived Acquisition Rate Follow-up: Rate of "A" Acquisitions, 24h versus 48h Follow-up: Rate of "B" Acquisitions, 24h versus 48h Effect of Time on Retron-Derived Acquisition Rate (overall) Effect of Source on Retron-Derived Acquisition Rate (overall) Effect of Interaction Between Time and Source on Retron-Derived Acquisition Rate Follow-up: Rate of "B" Acquisitions, 24h versus 48h Effect of Interaction Between Time and Source on Retron-Derived Acquisition Rate (overall) Effect of Interaction Retron-Derived Acquisition Rate (overall) Effect of Time on Non-Retron-Derived Acquisition Rate (overall) Effect of Intue or Non-Retron-Derived Acquisition Rate (overall) Effect of Intue on Non-Retron-Derived Acquisition Rate (overall) Effect of Intue on Non-Retron-Derived Acquisition Rate (overall)	Sidak's multiple comparisons test (corrected) Sidak's multiple comparisons test (corrected) unpaired test two-way ANOVA two-way ANOVA Sidak's multiple comparisons test (corrected) Sidak's multiple comparisons test (corrected) two-way ANOVA two-way ANOVA two-way ANOVA Sidak's multiple comparisons test (corrected) Sidak's multiple comparisons test (corrected) Sidak's multiple comparisons test (corrected) two-way ANOVA two-way ANOVA	0.5455 0.1602 0.5567 <0.0001 0.0003 >0.9999 0.005 0.3036 0.0005 0.3036 0.00473 0.392 0.00473 0.392 0.0002 0.1003 0.1855 0.5823	ns **** ns ** ns *** ns *** ns *** ns *** ns ***
h i	3	Effect of Interaction Between Time and Order on Non-Retron-Derived Acquisition Rate Follow-up: Rate of "N" Acquisitions A>8, 24h versus 48h Follow-up: Rate of "N" Acquisitions Rate (Argunt Context) "A" (Sal) versus 'B" (Argunt Context) Effect of Time on Retron-Derived Acquisition Rate (overall) Effect of Source on Retron-Derived Acquisition Rate (overall) Effect of Interaction Between Time and Source on Retron-Derived Acquisition Rate Follow-up: Rate of "A" Acquisitions, 24h versus 48h Follow-up: Rate of "B" Acquisitions, 24h versus 48h Effect of Time on Retron-Derived Acquisition Rate (overall) Effect of Source on Retron-Derived Acquisition Rate (overall) Effect of Source on Retron-Derived Acquisition Rate (overall) Effect of Interaction Between Time and Source on Retron-Derived Acquisition Rate Follow-up: Rate of "A" Acquisitions, 24h versus 48h Effect of Time on Non-Retron-Derived Acquisition Rate (overall) Effect of Interaction Between Time and Source Derived Acquisition Rate (overall) Effect of Interaction Between Time and Order on Non-Retron-Derived Acquisition Rate (overall) Effect of Interaction Rate of "N" Acquisitions A-2h, persus 48h Effect of Interaction Between Time and Order on Non-Retron-Derived Acquisition Rate (overall) Effect of Interaction Rate of "N" Acquisitions A-2h, persus 48h Effect of Interaction Rate Acquisition Rate (overall) Effect of Interaction Rate Acquisition Rate (overall) Effect of Interaction Rate of "N" Acquisitions A-2h, persus 48h	Sidak's multiple comparisons test (corrected) Sidak's multiple comparisons test (corrected) unpaired test two-way ANOVA two-way ANOVA Sidak's multiple comparisons test (corrected) Sidak's multiple comparisons test (corrected) two-way ANOVA two-way ANOVA Sidak's multiple comparisons test (corrected) Sidak's multiple comparisons test (corrected) Sidak's multiple comparisons test (corrected) two-way ANOVA two-way ANOVA two-way ANOVA two-way ANOVA two-way ANOVA two-way ANOVA	0.5455 0.1602 0.5562 0.0001 0.0003 0.0999 0.005 0.3036 0.0002 0.0473 0.392 0.0002 0.1003 0.1003 0.1003 0.1002 0.1003 0.1002 0.1003 0.1002 0.1002 0.1002 0.1002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0005 0.0002 0.0005 0.0002 0.0005 0.0002 0.0005 0.0002 0.0005 0.0002 0.0005 0.000200000000	ns **** ns *** ns *** ns *** ns *** ns *** ns ns ***
h i	3 4 4	Effect of Interaction Between Time and Order on Non-Retron-Derived Acquisition Rate Follow-up: Rate of "N" Acquisitions A>8, 24h versus 48h Follow-up: Rate of "N" Acquisitions R>-8, 24h versus 48h "A" (5a) versus 'B" (3c) Effect of Time on Retron-Derived Acquisition Rate (overall) Effect of Source on Retron-Derived Acquisition Rate (overall) Effect of Interaction Between Time and Source on Retron-Derived Acquisition Rate Follow-up: Rate of "A" Acquisitions, 24h versus 48h Follow-up: Rate of "B" Acquisitions, 24h versus 48h Effect of Time on Retron-Derived Acquisition Rate (overall) Effect of Source on Retron-Derived Acquisition Rate (overall) Effect of Source on Retron-Derived Acquisition Rate (overall) Effect of Interaction Between Time and Source on Retron-Derived Acquisition Rate Follow-up: Rate of "B" Acquisitions, 24h versus 48h Effect of Time on Non-Retron-Derived Acquisition Rate (overall) Effect of Interaction Between Time and Order on Non-Retron-Derived Acquisition Rate (overall) Effect of Interaction Retron-Derived Acquisition Rate (overall) Effect of Interaction Between Time and Order on Non-Retron-Derived Acquisition Rate Follow-up: Rate of "N" Acquisitions A-Na yeth versus 48h Follow-up: Rate of "N" Acquisitions A-Na yeth versus 48h Effect of Interaction Between Time and Order on Non-Retron-Derived Acquisition Rate (overall) Effect of Interaction Between Time and Order on Non-Retron-Derived Acquisition Rate Follow-up: Rate of "N" Acquisitions A-Na yeth versus 48h Follow-up: Rate of "N" Acquisitions A-Na yeth versus 48h Effect of Interaction Between Time and Order on Non-Retron-Derived Acquisition Rate Follow-up: Rate of "N" Acquisitions A-Na yeth versus 48h Effect of Interaction Between Time and Order on Non-Retron-Derived Acquisition Rate Follow-up: Rate of "N" Acquisitions A-Na yeth versus 48h Effect of Interaction Between Time and Creder on Non-Retron-Derived Acquisition Rate Follow-up: Rate of "N" Acquisitions A-Na yeth versus 48h Effect of Order of Nun-Retron-Derived Acquisition Rate (A-Na yet	Sidak's multiple comparisons test (corrected) Sidak's multiple comparisons test (corrected) unpaired test two-way ANOVA two-way ANOVA Sidak's multiple comparisons test (corrected) Sidak's multiple comparisons test (corrected) two-way ANOVA two-way ANOVA Sidak's multiple comparisons test (corrected) Sidak's multiple comparisons test (corrected)	0.5455 0.1602 0.5562 <0.0001 0.0003 0.005 0.3036 0.0002 0.0473 0.392 0.0002 0.0002 0.0473 0.392 0.0002 0.1003 0.1855 0.5823 0.0007 0.009 0.0014 <0.0014	ns *** ns ** ns *** ns *** ns *** ns *** ns *** ***
h i	3 4 4	Effect of Interaction Between Time and Order on Non-Retron-Derived Acquisition Rate Follow-up: Rate of "N" Acquisitions A.>8, 24h versus 48h Follow-up: Rate of "N" Acquisitions R.>A, 24h versus 48h "A" (Sal) versus 'B" (arc) Effect of Time on Retron-Derived Acquisition Rate (overall) Effect of Interaction Between Time and Source on Retron-Derived Acquisition Rate (overall) Effect of Interaction Between Time and Source on Retron-Derived Acquisition Rate (overall) Effect of Time on Retron-Derived Acquisitions, 24h versus 48h Follow-up: Rate of "A" Acquisitions, 24h versus 48h Effect of Time on Retron-Derived Acquisition Rate (overall) Effect of Time on Retron-Derived Acquisition Rate (overall) Effect of Interaction Between Time and Source on Retron-Derived Acquisition Rate Follow-up: Rate of "A" Acquisitions, 24h versus 48h Follow-up: Rate of "A" Acquisitions, 24h versus 48h Follow-up: Rate of "A" Acquisitions Rate (overall) Effect of Interaction Between Time and Order on Non-Retron-Derived Acquisition Rate Follow-up: Rate of "A" Acquisitions Rate, 24h versus 48h Follow-up: Rate of "A" Acquisitions Rate, 24h versus 48h Ffect of Interaction Retron-Derived Acquisition Rate Ffect of Interaction Retron-Derived Acquisitions Rate, 24h versus 48h Ffect of Interaction Retron-Derived Acquisitions Rate, 24h versus 48h Ffloct of Interaction Retron-Derived Acquisitions Rate, 24h versus 48h Ffloct of Interactio	Sidak's multiple comparisons test (corrected) Sidak's multiple comparisons test (corrected) unpaired test two-way ANOVA two-way ANOVA Sidak's multiple comparisons test (corrected) Sidak's multiple comparisons test (corrected) Sidak's multiple comparisons test (corrected) two-way ANOVA two-way ANOVA Sidak's multiple comparisons test (corrected) Sidak's multiple comparisons test (corrected) two-way ANOVA two-way ANOVA two-way ANOVA	0.5455 0.1602 0.5562 <0.0001 0.0003 0.0999 0.005 0.3036 0.0002 0.00473 0.392 0.0002 0.0003 0.1003 0.1003 0.1855 0.5823 0.0007 0.0014 <0.0001 0.7179 0.0044	ns ns **** *** ns *** ns *** ns *** ns *** ns *** ns *** ns *** ns *** ns ***
h i	3 4 4	Effect of Interaction Between Time and Order on Non-Retron-Derived Acquisition Rate Follow-up: Rate of "N" Acquisitions A>8, 24h versus 48h Follow-up: Rate of "N" Acquisitions A>8, 24h versus 48h "A" (Sal) versus 'B" (Ac) Effect of Time on Retron-Derived Acquisition Rate (overall) Effect of Source on Retron-Derived Acquisition Rate (overall) Effect of Interaction Between Time and Source on Retron-Derived Acquisition Rate (overall) Effect of Interaction Between Time and Source on Retron-Derived Acquisition Rate (overall) Effect of Interaction Between Time and Source on Retron-Derived Acquisition Rate (overall) Effect of Interaction Between Time and Source on Retron-Derived Acquisition Rate Follow-up: Rate of "R" Acquisitions, 24h versus 48h Effect of Time on Non-Retron-Derived Acquisition Rate (overall) Effect of Interaction Between Time and Order on Non-Retron-Derived Acquisition Rate (overall) Effect of Interaction Between Time and Order on Non-Retron-Derived Acquisition Rate (overall) Effect of Interaction Between Time and Order on Non-Retron-Derived Acquisition Rate Follow-up: Rate of "N" Acquisitions A>8, 24h versus 48h Effect of Interaction Between Time and Order on No-Retron-Derived Acquisition Rate (overall) Effect of Interaction Between Time and Order on No-Retron-Derived Acquisition Rate Follow-up: Rate of "N" Acquisitions A>8, 24h versus 48h Effect of Interaction Between Time and Order on No-Retron-Derived Acquisition Rate Follow-up: Rate of "N" Acquisitions A>8, 24h versus 48h Effect of Interaction Between Time and Order on No-Retron-Derived Acquisition Rate Effect of Rule Effect of Rule Effect of Rule Effect of Rule Effect of Rule Effect of Rule Effect of Rule	Sidak's multiple comparisons test (corrected) Sidak's multiple comparisons test (corrected) unpaired test two-way ANOVA two-way ANOVA Sidak's multiple comparisons test (corrected) Sidak's multiple comparisons test (corrected) two-way ANOVA two-way ANOVA Sidak's multiple comparisons test (corrected) Sidak's multiple comparisons test (corrected)	0.5455 0.1602 0.5563 <0.0001 0.0003 0.005 0.3036 0.0002 0.00473 0.3026 0.0002 0.0002 0.1003 0.0002 0.1003 0.0002 0.1003 0.0004 0.1855 0.5823 0.0001 0.0014 0.0014 0.7179 0.0041	ns *** ns ** ns ** ns ** ns ** ns ** ns ** ns ** ns ** ** ns ** ** ** ** ** ** ** ** ** *
h i	3 4 4	Effect of Interaction Between Time and Order on Non-Retron-Derived Acquisition Rate Follow-up: Rate of "N" Acquisitions A:>8, 24h versus 48h Follow-up: Rate of "N" Acquisitions Rate, 24h versus 48h "A" (Sal) versus 'B" (Ac) Effect of Time on Retron-Derived Acquisition Rate (overall) Effect of Source on Retron-Derived Acquisition Rate (overall) Effect of Interaction Between Time and Source on Retron-Derived Acquisition Rate Follow-up: Rate of "A" Acquisitions, 24h versus 48h Follow-up: Rate of "B" Acquisitions, 24h versus 48h Effect of Time on Retron-Derived Acquisition Rate (overall) Effect of Source on Retron-Derived Acquisition Rate (overall) Effect of Source on Retron-Derived Acquisition Rate (overall) Effect of Time on Retron-Derived Acquisition Rate (overall) Effect of Interaction Between Time and Source on Retron-Derived Acquisition Rate Follow-up: Rate of "B" Acquisitions, 24h versus 48h Follow-up: Rate of "N" Acquisitions, 24h versus 48h Ffiet ri Order (A:>8 vs B:>A) Effect of Interaction Ffiet of Interaction Field (A:>8 vs B:>A) Follow-up: AlV (A:>8 vs B:>A) Follow-up: AlV (A:>8 vs B:>A) Follow-up: AlV (A:>8 vs B:>A)	Sidak's multiple comparisons test (corrected) Sidak's multiple comparisons test (corrected) unpaired test two-way ANOVA two-way ANOVA two-way ANOVA Sidak's multiple comparisons test (corrected) Sidak's multiple comparisons test (corrected)	0.5455 0.1602 0.5563 <0.0001 0.0003 0.0999 0.005 0.3036 0.0002 0.0473 0.392 0.0007 0.1003 0.0007 0.5823 0.0007 0.0904 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.	ns ns **** *** ns *** ns *** ns *** ns *** ns *** ns *** ns *** ns *** ns ***
h	3 4 4	Effect of Interaction Between Time and Order on Non-Retron-Derived Acquisition Rate Follow-up: Rate of "N" Acquisitions A->8, 24h versus 48h Follow-up: Rate of "N" Acquisitions Rate "A" (Sal) versus 'B" (Rat) Effect of Time on Retron-Derived Acquisition Rate (overall) Effect of Interaction Between Time and Source on Retron-Derived Acquisition Rate Follow-up: Rate of "B" Acquisitions, 24h versus 48h Follow-up: Rate of "B" Acquisitions, 24h versus 48h Effect of Time on Retron-Derived Acquisition Rate (overall) Effect of Time on Retron-Derived Acquisition Rate (overall) Effect of Time on Retron-Derived Acquisitions, 24h versus 48h Follow-up: Rate of "B" Acquisitions, 24h versus 48h Follow-up: Rate of "A" Acquisitions, 24h versus 48h Effect of Interaction Between Time and Order on Non-Retron-Derived Acquisition Rate (overall) Effect of Interaction Between Time and Order on Non-Retron-Derived Acquisition Rate Follow-up: Rate of "A" Acquisitions, A-3h, 24h versus 48h Follow-up: Rate of "A" Acquisitions, A-3b, 24h versus 48h Follow-up: RATE, A-3b vs B-AA Follow-Up: RATE, A-3b vs B-AA	Sidak's multiple comparisons test (corrected) Sidak's multiple comparisons test (corrected) unpaired test two-way ANOVA two-way ANOVA Sidak's multiple comparisons test (corrected) Sidak's multiple comparisons test (corrected)	0.5455 0.1602 0.5563 0.50001 0.0003 0.0005 0.3036 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0003 0.1855 0.5825 0.0001 0.0179 0.0004 <0.0001 0.236 0.0001	ns **** ns *** ns *** ns *** ns *** ***
h i	3 4 4	Effect of Interaction Between Time and Order on Non-Retron-Derived Acquisition Rate Follow-up: Rate of "N" Acquisitions A:>8, 24h versus 48h Follow-up: Rate of "N" Acquisitions Rate, 24h versus 48h "A" (Sal) versus 'B" (Ac) Effect of Time on Retron-Derived Acquisition Rate (overall) Effect of Source on Retron-Derived Acquisition Rate (overall) Effect of Interaction Between Time and Source on Retron-Derived Acquisition Rate Follow-up: Rate of "A" Acquisitions, 24h versus 48h Follow-up: Rate of "B" Acquisitions, 24h versus 48h Effect of Time on Retron-Derived Acquisition Rate (overall) Effect of Source on Retron-Derived Acquisition Rate (overall) Effect of Source on Retron-Derived Acquisition Rate (overall) Effect of Time on Retron-Derived Acquisition Rate (overall) Effect of Interaction Between Time and Source on Retron-Derived Acquisition Rate Follow-up: Rate of "B" Acquisitions, 24h versus 48h Follow-up: Rate of "N" Acquisitions, 24h versus 48h Ffiet ri Order (A:>8 vs B:>A) Effect of Interaction Ffiet of Interaction Follow-up: AlVA (A:>8 vs B:>A) Ffiet of Sule	Sidak's multiple comparisons test (corrected) Sidak's multiple comparisons test (corrected) unpaired test two-way ANOVA two-way ANOVA two-way ANOVA Sidak's multiple comparisons test (corrected) Sidak's multiple comparisons test (corrected)	0.5455 0.1602 0.5563 <0.0001 0.0003 0.0999 0.005 0.3036 0.0002 0.0473 0.392 0.0007 0.1003 0.0007 0.5823 0.0007 0.0904 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.0014 <0.	ns ns ns ns ns ns ns ns ns ns
h i	3 4 4	Effect of Interaction Between Time and Order on Non-Retron-Derived Acquisition Rate Follow-up: Rate of "N" Acquisitions A>8, 24h versus 48h Follow-up: Rate of "N" Acquisitions R>A, 24h versus 48h "A" (5a) versus 'B" (3c) Effect of Time on Retron-Derived Acquisition Rate (overall) Effect of Source on Retron-Derived Acquisition Rate (overall) Effect of Interaction Between Time and Source on Retron-Derived Acquisition Rate Follow-up: Rate of "A" Acquisitions, 24h versus 48h Follow-up: Rate of "B" Acquisitions, 24h versus 48h Effect of Time on Retron-Derived Acquisition Rate (overall) Effect of Source on Retron-Derived Acquisition Rate (overall) Effect of Source on Retron-Derived Acquisition Rate (overall) Effect of Interaction Between Time and Source on Retron-Derived Acquisition Rate Follow-up: Rate of "B" Acquisitions, 24h versus 48h Follom-up: Rate of "B" Acquisitions, 74h versus 48h Effect of Time on Non-Retron-Derived Acquisition Rate (overall) Effect of Interaction Between Time and Order on Non-Retron-Derived Acquisition Rate Follow-up: Rate of "B" Acquisitions, 74h versus 48h Follow-up: Rate of "B" Acquisitions, 74h versus 48h Effect of Interaction Between Time and Order on Non-Retron-Derived Acquisition Rate (overall) Effect of Interaction Between Time and Order on Non-Retron-Derived Acquisition Rate Follow-up: Rate of "B" Acquisitions, 74h versus 48h Follow-up: Rate of "B" Acquisitions, 74h versus 48h Effect of Interaction Between Time and Order on Non-Retron-Derived Acquisition Rate Follow-up: Rate of "B" Acquisitions, 74h versus 48h Effect of Interaction Between Time and Order on Non-Retron-Derived Acquisition Rate Follow-up: Rate of "B" Acquisitions, 74h versus 48h Effect of Interaction Follow-up: Rate of "B" Acquisitions, 74h versus 48h Effect of Rule Effect of Rule Effect of Rule Effect of Rule Fiftet of Interaction Follow-up: RA (A-28 vs B-2A) Follow-up: RA	Sidak's multiple comparisons test (corrected) Sidak's multiple comparisons test (corrected) unpaired test two-way ANOVA two-way ANOVA Sidak's multiple comparisons test (corrected) Sidak's multiple comparison	0.5455 0.1602 0.5562 0.50001 0.0003 0.0003 0.0005 0.3036 0.0002 0.0473 0.392 0.0002 0.0473 0.392 0.0002 0.0473 0.392 0.0002 0.1003 0.1003 0.1003 0.0001 0.1179 0.0044 <0.0001 0.236 <0.0001 0.236	ns ns ns ns ns ns ns ns ns ns
h i	3 4 4	Effect of Interaction Between Time and Order on Non-Retron-Derived Acquisition Rate Follow-up: Rate of "N" Acquisitions A:>8, 24h versus 48h Follow-up: Rate of "N" Acquisitions Rate, 24h versus 48h "A" (5al) versus 'B" (3ct) Effect of Time on Retron-Derived Acquisition Rate (overall) Effect of Source on Retron-Derived Acquisition Rate (overall) Effect of Interaction Between Time and Source on Retron-Derived Acquisition Rate Follow-up: Rate of "A" Acquisitions, 24h versus 48h Follow-up: Rate of "B" Acquisitions, 24h versus 48h Effect of Time on Retron-Derived Acquisition Rate (overall) Effect of Time on Retron-Derived Acquisition Rate (overall) Effect of Time on Retron-Derived Acquisition Rate (overall) Effect of Time on Non-Retron-Derived Acquisition Rate (overall) Effect of Time on Non-Retron-Derived Acquisition Rate (overall) Effect of Induce: Order on Non-Retron-Derived Acquisition Rate Follow-up: Rate of "N" Acquisitions A:>A, 24h versus 48h Follow-up: Rate of "N" Acquisitions A:>A, 24h versus 48h Effect of Interaction Between Time and Order on Non-Retron-Derived Acquisition Rate Follow-up: Rate of "N" Acquisitions A:>A, 24h versus 48h Effect of Interaction Between Time and Order on Non-Retron-Derived Acquisition Rate Follow-up: Rate of "N" Acquisitions A:>A, 24h versus 48h Effect of Rule Effect of Rule A:>B vs B:>A) Follow-up: R/B (A:>B vs B:>A) Follow	Sidak's multiple comparisons test (corrected) Sidak's multiple comparisons test (corrected) unpaired test two-way ANOVA two-way ANOVA Sidak's multiple comparisons test (corrected) Sidak's multiple comparisons test (corrected)	0.5455 0.1602 0.5562 0.0001 0.0003 0.0005 0.3036 0.0002 0.0473 0.392 0.0002 0.0473 0.392 0.0002 0.0473 0.392 0.0002 0.0003 0.1003 0.5823 0.0007 0.0014 <0.0001 0.236 <0.0001 0.236 <0.0001 0.236 <0.0001 0.236 <0.0001 0.236 <0.0001 0.236 <0.0001 0.236 <0.0001 0.236 <0.0001 0.236 <0.0001 0.236 <0.0001 0.236 <0.0001 0.236 <0.0001 0.236 <0.0001 0.236 <0.0001 0.236 <0.0001 0.236 <0.0001 0.236 <0.0001 0.236 <0.0001 0.236 <0.0001 0.236 <0.0001 0.236 <0.0001 0.236 <0.0001 0.236 <0.0001 0.236 <0.0001 0.236 <0.0001 0.236 <0.0001 0.236 <0.0001 0.236 <0.0001 0.236 <0.0001 0.236 <0.0001 0.0001 0.0002 0.0001 0.0002 0.0001 0.0000 0.0001 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.00000 0.00000 0.000000	ns ns ns ns ns ns
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Supplementary Table 2, Strains

Name	Species	Parental Line	Genotype	Method
			fhuA2 Δ(argF-lacZ)U169 phoA glnV44 Φ80	
			∆(lacZ)M15 gyrA96 recA1 relA1 endA1 thi-1	
NEB 5-alpha	E. coli	DH5a	hsdR17	
			F-ompT hsdSB (rB- mB-) gal dcm araB::T7RNAP-	
BL21-AI	E. coli	BL21	tetA	
			E. coli B F– ompT gal dcm lon hsdSB(rB ⁻ mB ⁻)	lambda Red recombinase mediated insertion of
bSLS.114	E. coli	BL21-AI	[malB ⁺] _{K-12} (λ^{S}) araB::T7RNAP-tetA Δ Eco1	chloramphenicol resistance, marker excision by FLP
			MG1655	
			galKL187TAAL188TGA Δexol ΔrecJ araB^:pBAD>T	
bMS.346	E. coli	MG1655	7RNAP;Tet	lambda Red recombination and phage P1 transduction

Supplementary Table 3, Plasmids

Name	Genes	Promoter	Inducer (working concentration)	Used in (panels)
pWUR 1+2	NUR 1+2 Cas1 + Cas2 (Yosef et al. 2012)		L-arabinose (2 mg/mL), IPTG (1 mM)	3g-i
pSLS.400	Eco4 RT	pMphR	Erythromycin (400 μM)	3g-i
pSLS.402	Eco1 RT	pMphR	Erythromycin (400 μM)	1c, 1e-i, 2b-d, 3b-e, 3h
pSLS.405	1: Eco1 ncRNA + Eco1 RT; 2: Cas1 + Cas2	1: T7/lac; 2: T7/lac	L-arabinose (2 mg/mL), IPTG (1 mM)	1c, 3c, 3h
pSLS.407	1: Eco1 ncRNA v32; 2: Cas1 + Cas2	1: T7/lac; 2: T7/lac	L-arabinose (2 mg/mL), IPTG (1 mM)	1c, 1e
pSLS.408	1: Eco1 ncRNA v35; 2: Cas1 + Cas2	1: T7/lac; 2: T7/lac	L-arabinose (2 mg/mL), IPTG (1 mM)	1c, 1e-f
pSLS.416	1: Eco1 ncRNA v35, long a1/a2; 2: Cas1 + Cas2	1: T7/lac; 2: T7/lac	L-arabinose (2 mg/mL), IPTG (1 mM)	1f-i, 2b-d, 3b, 3d-e
pSLS.419	1: Eco4 ncRNA; 2: Cas1 + Cas2	1: T7/lac; 2: T7/lac	L-arabinose (2 mg/mL), IPTG (1 mM)	3g-i
	1: Eco1 ncRNA v35, long a1/a2, barcode 1 (CCT-AGG); 2: Cas	1+		
pSBK.009	Cas2	1: T7/lac; 2: T7/lac	L-arabinose (2 mg/mL), IPTG (1 mM)	2b-d
	1: Eco1 ncRNA v35, long a1/a2, barcode 2 (GCT-AGC); 2: Cas	1 +		
pSBK.010	Cas2	1: T7/lac; 2: T7/lac	L-arabinose (2 mg/mL), IPTG (1 mM)	2b-d
	1: Eco1 ncRNA v35, long a1/a2, barcode 3 (CTG-CAG); 2: Cas	1+		
pSBK.011	Cas2	1: T7/lac; 2: T7/lac	L-arabinose (2 mg/mL), IPTG (1 mM)	2b-d
	1: Eco1 ncRNA v35, long a1/a2, barcode 4 (GTG-CAC); 2: Cas	1+		
pSBK.012	Cas2	1: T7/lac; 2: T7/lac	L-arabinose (2 mg/mL), IPTG (1 mM)	2b-d
	1: Eco1 ncRNA v35, long a1/a2, barcode 5 (ACG-CGT); 2: Cas	1+		
pSBK.013	Cas2	1: T7/lac; 2: T7/lac	L-arabinose (2 mg/mL), IPTG (1 mM)	2b-d
	1: Eco1 ncRNA v35, long a1/a2, barcode 6 (CAG-TAG); 2: Cas	1+		
pSBK.014	Cas2	1: T7/lac; 2: T7/lac	L-arabinose (2 mg/mL), IPTG (1 mM)	2b-d
	1: Eco1 ncRNA v35, long a1/a2, barcode 7 (GAG-CTC); 2: Cas	1+	· · · · · · · · · · · · · · · · · · ·	
pSBK.015	Cas2	1: T7/lac; 2: T7/lac	L-arabinose (2 mg/mL), IPTG (1 mM)	2b-d
	1: Eco1 ncRNA v35, long a1/a2, , barcode 8 (GCT-TGC); 2: Cas	i1 +		
pSBK.016	Cas2	1: T7/lac; 2: T7/lac	L-arabinose (2 mg/mL), IPTG (1 mM)	2b-d
pSBK.079	1: Eco1 RT; 2: Cas1 + Cas2	1: J23115; 2: T7/lac	L-arabinose (2 mg/mL), IPTG (1 mM)	4b-e, 4g-j, 4l-m
	A: Eco1 ncRNA v35, long a1/a2; B:Ecc	01	A: anhydrotetracycline (100 ng/mL); E	1:
pSBK.134	ncRNA v35, long a1/a2, barcode 6	A: pTet*; B: pBetl	choline chloride (100 μ M)	4b-e, 4l
	A: Eco1 ncRNA v35, long a1/a2; B:Eco			B:
pSBK.136	ncRNA v35, long a1/a2, barcode 6	A: pSalTTC; B: pTet*	anhydrotetracycline (100 ng/mL)	4g-j, 4m

Supplementary Table 4, Primers

wame	sequence	Purpose
SPCR_MiScq3_fow1	CTTTCCCTACACGACGCTCTTCCGATCTNCATTAATTAATAATAGGTTATGTTTAGAGTGTTCC	Forward primer with Illumina adapter (#1 of set of 5) used to amplify BL21-AI CRISPR array for sequencing
SPCR_MiSeq3_fow2	CTTTCCCTACACGACGCTCTTCCGATCTNNCATTAATTAATAATAGGTTATGTTTAGAGTGTTCC	Forward primer with Illumina adapter (#2 of set of 5) used to amplify BL21-AI CRISPR array for sequencing
SPCR_MiSeq3_tow3	CTTTCCCTACACGACGCTCTTCCGATCTNNNCATTAATTAATAATAGGTTATGTTTAGAGTGTTCC	Forward primer with Illumina adapter (#3 of set of 5) used to amplify BL21-AI CRISPR array for sequencing
SPCR_MiSeq3_fow4	CTTTCCCTACACGACGCTCTTCCGATCTNNNNCATTAATTAATAATAGGTTATGTTTAGAGTGTTCC	Forward primer with Illumina adapter (#4 of set of 5) used to amplify BL21-AI CRISPR array for sequencing
SPCR_MiSeq3_fow5	CTTTCCCTACACGACGCTCTTCCGATCTNNNNCATTAATTAATAATAGGTTATGTTTAGAGTGTTCC	Forward primer with Illumina adapter (#5 of set of 5) used to amplify BL21-AI CRISPR array for sequencing
SPCR_MiSeq3_rev	GGAGTTCAGACGTGTGCTCTTCCGATCTGTGTCAACAATCGTTCCCTGATTGTC	Reverse primer with Illumina adapter used to amplify BL21-AI CRISPR array for sequencing
Eco1_v35_oligo	GTCAGAAAAAACGGGTGGAGAGGTTGCTGCAACCTCTCCATTTTCTTGTAACTCAGA	Test acquisition behavior of Eco1 v35 by electroporation
Eco4 wt oligo	AGCCGCGGAACAAACTTTTTGATCCGCAACCTACTGGATTGCGGCTCAAAAAGTTTGTTCCGCAACTGTAAATGTAATC	Test acquisition behavior of EcoA by electroporation