Table S1. Quantification of cytoskeletal recruitment in the leading zone of the pLLp

| | Par3-tagRFP | | | γ-tubulin | | | F-actin | | |
|---------|-------------|--------|-----------|------------|--------|-----------|---------|--------|-----------|
| | DMSO | SU5402 | PD0325901 | DMSO | SU5402 | PD0325901 | DMSO | SU5402 | PD0325901 |
| Mean | 11.8% | 13.5% | 11% | 10.2% | 10.1% | 11.3% | 19.2% | 15.36% | 21.3% |
| s.e.m. | 0.52% | 0.97% | 0.88% | 0.62% | 0.7% | 0.71% | 0.39% | 1% | 0.92% |
| P-value | | 0.67 | | | 0.88 | | | 0.156 | |
| | Myosin II | | | Cadherin 2 | | | | | |
| | DMSO | SU5402 | PD0325901 | DMSO | SU5402 | PD0325901 | | | |
| Mean | 17.7% | 18.9% | 16.1% | 17.6% | 19% | 16.5% | | | |
| s.e.m. | 0.51% | 0.45% | 1.2% | 1.13% | 0.55% | 0.93% | | | |
| P-value | | 0.369 | | | 0.407 | | | | |

To calculate means, cells were counted from *n*=6 pLLps in each condition. Data were analyzed using one-way ANOVA.

Table S2. Pairwise comparisons between Rockout and Ras-MAPK synergy conditions

| | DMSO | 10 μM Rockout | 36°C HS | 0.5 μM PD0325901 | 36°C HS/10 μΜ Rockout | 10 μM Rockout/0.5 μM PD0325901 |
|-----------------------------------|-----------|------------------|-----------|---------------------|--------------------------|-----------------------------------|
| Mean ± s.e.m. | 22.7±4.4% | 23.3±6.6% | 24.5±4.5% | 24.3±3.8% | 33.4±6.0% | 32.1±7.1% |
| DMSO | | 0.9996 | 0.9546 | 0.971 | 0.0002 | 0.0014 |
| 10 μM Rockout | | | 0.9948 | 0.9977 | 0.0008 | 0.0048 |
| 36°C HS | | | | 1 | 0.0028 | 0.0166 |
| 0.5 μM PD0325901 | | | | | 0.0022 | 0.0132 |
| 36°C HS/10 μM Rockout | | | | | | 0.9912 |
| 10 μM Rockout/0.5 μM PD0325901 | | | | | | |

To calculate means, cells were counted from n=10 pLLps in each condition. P-values were derived from Tukey-Kramer post-hoc tests. Heat shock (HS) conditions were 40 minutes at 36°C.