

Table S1. **Rescue assays between Ryk and noncanonical Wnt components**

| Injected RNAs | ++ | + | - | Number |
|-------------------------------------|-----------|----------|----------|---------------|
| Wnt11 + XRyk MO and Δ C | | | | |
| Uninjected | 96.9 | 0 | 3.1 | 32 |
| 500 pg Wnt11 | 0 | 25 | 75 | 28 |
| 500 pg Wnt11 + 20 ng XRyk MO | 70.6 | 14.7 | 14.7 | 34 |
| 500 pg Wnt11 + 40 ng XRyk MO | 62.2 | 27.0 | 10.8 | 37 |
| 500 pg Wnt11 + 1 ng XRyk Δ C | 40.9 | 45.5 | 13.6 | 22 |
| XRyk + Xdd1 | | | | |
| Uninjected | 77.8 | 22.2 | 0 | 45 |
| 1 ng XRyk | 6.9 | 24.1 | 70 | 29 |
| 1 ng XRyk + 2 ng Xdd1 | 22.5 | 32.6 | 44.9 | 49 |
| 1 ng XRyk + 3 ng Xdd1 | 51.6 | 29.0 | 19.4 | 31 |
| XRyk + DN XRhoA | | | | |
| Uninjected | 96.7 | 0 | 3.3 | 31 |
| 1 ng XRyk | 0 | 56.2 | 43.8 | 32 |
| 1 ng XRyk + 400 pg DN XRhoA | 29.0 | 48.4 | 22.6 | 31 |
| XRyk + x β arr2 MO | | | | |
| Uninjected | 79.4 | 20.6 | 0 | 34 |
| 1 ng XRyk | 0 | 29.4 | 70.6 | 34 |
| 1 ng XRyk + 5 ng x β arr2 MO | 34.1 | 41.5 | 24.4 | 41 |

Each DMZ elongation assay was performed more than three times. *n*, total number of explants. ++, significant elongation (length/width ratio > 3); +, mild elongation (length/width ratio > 2); -, no or weak elongation.