**Table S1. The *Tg(flk1:moesin1-egfp)* transgene can partially rescue vascular defects following knockdown of endogenous Moesin1**

| MO/background/exp. | ISV perfusion normal | Partial (L-M) | Partial (M-S) | Absent | *n* |
|---|---|---|---|---|---|
| Control/FME/1 | 10 | 0 | 0 | 0 | 10 |
| Control/FME/2 | 10 | 0 | 0 | 0 | 10 |
| Control/FME/3 | 10 | 0 | 0 | 0 | 10 |
| Control/FME/4 | 10 | 0 | 0 | 0 | 10 |
| Total | 40 | 0 | 0 | 0 | 40 |
| Msn1/Sib/1 | 0 | 0 | 0 | 10 | 10 |
| Msn1/Sib/2 | 2 | 2 | 4 | 6 | 14 |
| Msn1/Sib/3 | 0 | 0 | 8 | 6 | 14 |
| Msn1/Sib/4 | 2 | 2 | 5 | 1 | 10 |
| Total | 4 | 4 | 17 | 23 | 48 |
| Msn1/FME/1 | 4 | 3 | 0 | 3 | 10 |
| Msn1/FME/2 | 6 | 2 | 0 | 2 | 10 |
| Msn1/FME/3 | 4 | 3 | 0 | 1 | 8 |
| Msn1/FME/4 | 8 | 4 | 0 | 2 | 14 |
| Total | 22 | 12 | 0 | 8 | 42 |

The number of embryos displaying either normal, partial (L-M, low to medium: 5-50% ISVs have no blood circulation), partial (M-S, medium to strong: 50-90% ISVs have no blood circulation), or absent circulation (>90% ISVs have no blood circulation) in the ISVs after injection of either a control or *moesin1* (Msn1) MO. Embryos were examined using microangiography at 54 hpf. FME is the *Tg(flk1:moesin1-egfp)* transgenic line, Sib refers to the non-transgenic siblings; exp. refers to the individual experiment. Four independent experiments were performed. For statistical analysis, because the replicates are considered to be independent, it is irrelevant whether the data are considered as four replicates or one larger experiment with aggregated values for the responses. There were two treatment groups, called *Tg(flk1:moesin1-egfp)* and non-transgenic siblings. The data model assigned to responses was a multinomial distribution.