Table S1. Complementation tests

Genotype	% Adult survival (expected is 33%)	% Egg hatch	Conclusions and comments
Zygotic alleles			
P3427/*scraps*^{7}	0% (*n*>300)	NA	P3427 is an allele of *scraps.*
scraps^{7}/*scraps*^{8}	0% (*n*>235)	NA	*scraps*^{7,8} are zygotic lethal alleles.
scraps^{7}/*scraps*^{7}	0% (*n*>300)	NA	Lethal period is late embryonic. Embryos cannot crawl out of the egg case. (Data not shown.)
Maternal alleles			
scraps^{HP}/*scraps*^{PE}	27% (*n*=330)	None	For all allelic combinations tested, embryos exhibit problems with cellularization and cannot complete gastrulation. No eggs hatch.
scraps^{HP}/*scraps*^{PQ}	26% (*n*=380)	None	
scraps^{RV}/*scraps*^{HP}	31% (*n*=414)	None	
scraps^{PE}/*scraps*^{PE}	21% V^{+} (*n*>300)	None	
scraps^{RS}/*scraps*^{HP}	NC	None	
scraps^{RV}/*scraps*^{RV}	V^{+} (*n*>300)	None	
scraps/+	NC	98%	
Maternal/zygotic alleles			Three maternal alleles (RS, PQ, HP) are lethal in combination with zygotic *scraps*^{7} and 8.
scraps^{RS}/*scraps*^{7}	0% (*n*>120)		*scraps*^{RS}, *scraps*^{PQ} and *scraps*$^{HP)}$ score in a similar manner over a deficiency of the region (Schupach and Wieschaus, 1989), and are therefore likely to represent small deficiencies of the gene and act as nulls.
scraps^{RS}/*scraps*^{8}	0% (*n*>600)		
scraps^{PQ}/*scraps*^{7}	0% (*n*>570)		
scraps^{HP}/*scraps*^{7}	6% (*n*=138)		Some adults survive; therefore, HP is slightly weaker than alleles RS and PQ above.
scraps$^{B26\text{-}35}$/*scraps*^{8}	Survival*	None	
scraps$^{C82\text{-}45}$/*scraps*^{8}	Survival*	None	
scraps^{PE}/*scraps*^{8}	Survival*	None	
scraps^{HP}/*scraps*^{3427}	28% (*n*=281)	NT	*scraps*^{P3427} is probably a hypomorph with reduced protein expression.
scraps^{RS}/*scraps*^{3427}	23% (*n*=130)	NT	

Complementation tests between combinations of *scraps* alleles (both maternal and zygotic). See Table S2 for allele references. The percent of viable adults of the genotype on the left was scored (see Materials and methods) and when appropriate, percentage of eggs that successfully hatched. *n*, total number of adults examined; NA, not applicable; NT, not tested; NC, not counted; V^{+}, variable (the number of homozygous *scraps* adults in the stock varies). This may be due to a secondary lethal mutation.
*Approximately as expected (33%).

Table S2. Location of amino acid changes in *scraps(anillin)* alleles

Stock name	Mutagen	Reference	Lesion/AA change (this manuscript)
scraps^{RS}	EMS	Schüpbach and Wieschaus (1989)	V1055S, T1076I
scraps^{PQ} *	EMS	Schüpbach and Wieschaus (1989)	V1055S, P1105S
scraps^{HP}	EMS	Schüpbach and Wieschaus (1989)	V1055S, G1083E
scraps^{PE}	EMS	Schüpbach and Wieschaus (1989)	V1055S, T511I
scraps^{RV} *	EMS	Schüpbach and Wieschaus (1989)	V1055S
scraps^{7}	X-ray	Heitzler et al. (1993)	Not sequenced
scraps^{8}	X-ray	Heitzler et al. (1993)	Not sequenced
scraps^{3427}	P-element	Doberstein et al. (1997)	P-element inserted 53 BP upstream of the *anillin* ATG
scraps$^{B26\text{-}35}$	EMS	T.M. and R. Lehmann (unpublished)	G892D
scraps$^{C82\text{-}45}$	EMS	T.M. and R. Lehmann (unpublished)	P902S

Stocks used in this manuscript and the location of the amino acid changes in *scraps* alleles. For the majority of maternal alleles, the entire genomic region was sequenced.

*Alleles sequenced only at the 3′ end of the gene (equivalent to the C-terminal 266 amino acids). We propose changing the name of the *scraps* gene to *anillin*, and use that nomenclature throughout the majority of the paper.