Supplementary data

Table 1S. Summary of yeast two-hybrid analysis of interactions between Mod(mdg4)-67.2 or Mod(mdg4) mutants and Su(Hw)^{MID}

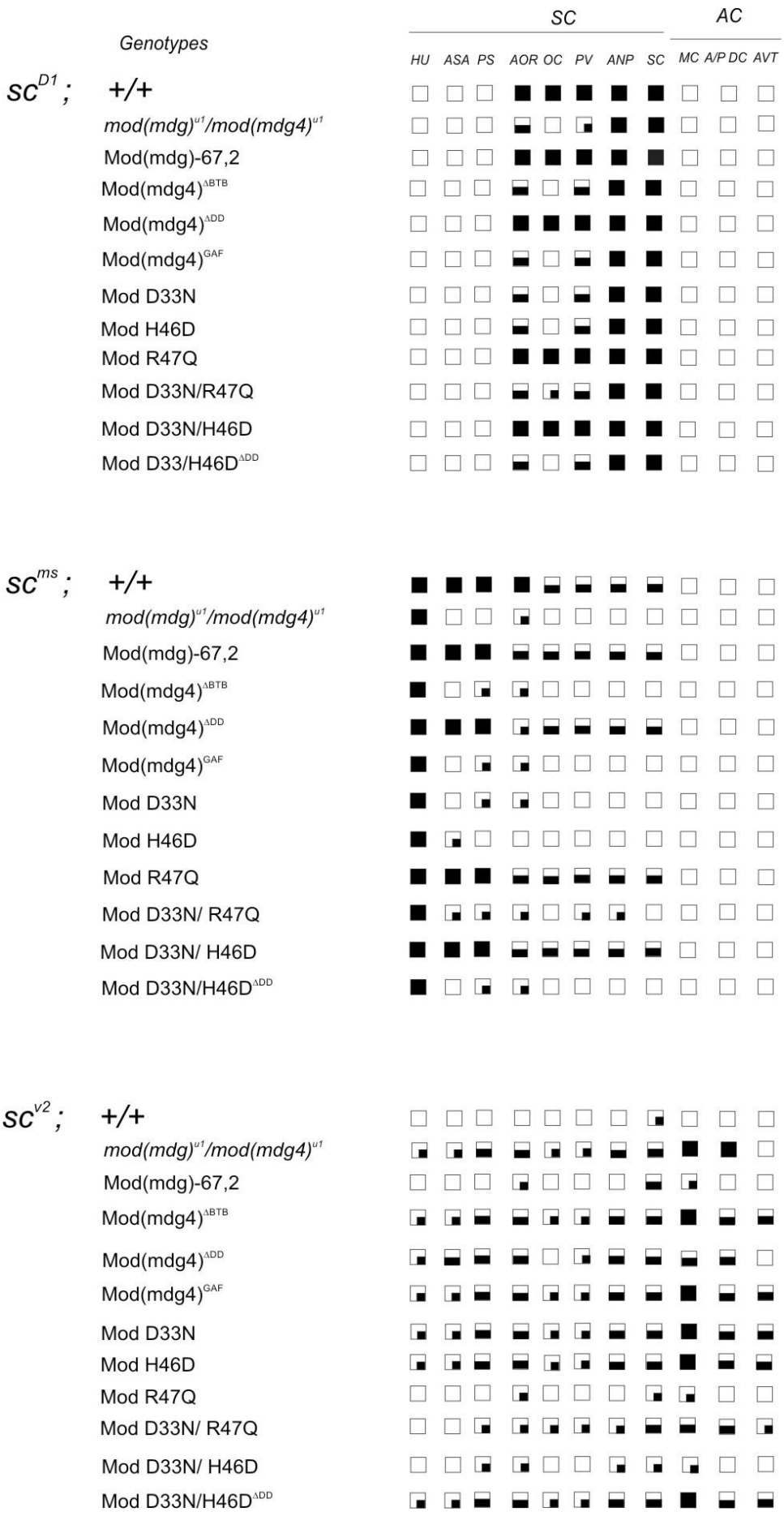
Interacting proteins		Strength of interaction	
GAL4BD	GAL4AD	AD fused before protein	AD fused behind protein
Su(Hw)^{MID}	Su(Hw)^{MID}	-	ND
Mod(mdg4)	Su(Hw)^{MID}	+++	ND
Su(Hw)^{MID}	Mod(mdg4)	+++	+++
Mod(mdg4)$^{\Delta BTB}$	Su(Hw)^{MID}	+++	ND
Su(Hw)^{MID}	Mod(mdg4)$^{\Delta BTB}$	++	+++
Su(Hw)^{MID}	ModD33N/H46D	+	+++
ModD33N/H46D	Su(Hw)^{MID}	+++	ND
Su(Hw)^{MID}	ModR47Q	++	+++
ModR47Q	Su(Hw)^{MID}	+++	ND
Su(Hw)^{MID}	ModD33N	+	+++
ModD33N	Su(Hw)^{MID}	+++	ND
Su(Hw)^{MID}	ModD33N/R47Q	++	+++
ModD33N/R47Q	Su(Hw)^{MID}	+++	ND
Su(Hw)^{MID}	ModH46D	+	+++
ModH46D	Su(Hw)^{MID}	+++	ND
Su(Hw)^{MID}	Mod(mdg4)^{GAF}	+++	+++
Mod(mdg4)^{GAF}	Su(Hw)^{MID}	+++	ND

No growth occurred after transformation with single plasmids, indicating that interactions between the proteins are required for expression of the reporter genes (data not shown). The GAL4 activator domain (AD) is fused in front of or behind the tested protein. Symbol "+" refers to the relative strength of two-

hybrid interaction. The symbol “-“ indicates the absence of interaction. ND, this combination was not determined. Equivalent expression of the chimeric proteins in yeast was confirmed by immunoblotting with GAL4 BD or AD monoclonal antibodies (data not shown).

Figure legend

Figure 1S. The effect of the mutant Mod(mdg4) proteins on the phenotype of the mutations in AS-C. Phenotypes of the indicated *sc* mutations were examined in males. All mutant Mod(mdg4) proteins were expressed in the *mod(mdg4)*^{u1} or *mod(mdg4)*^{T6} background. Flies expressing ModS25A/D33Q, Mod(mdg4)$^{\Delta BTB}$ and ModD33N display *sc* phenotype like control *mod(mdg4)*^{u1}/*mod(mdg4)*^{u1} flies, while flies expressing ModR47Q and Mod(mdg4)-67.2 had similar *sc* phenotypes (data not shown). The standard nomenclature for each bristle is indicated as follows (Lindsley and Zimm, 1992): HU, humeral; AOR, anterior orbital; PS, presutural; ASA, anterior supra-alar; OC, ocellar; PV, postvertical; ANP, anterior notopleural; SC, scutellar; ADC, anterior dorsocentral; PDC, posterior dorsocentral; AVT, anterior vertical; MC, the rows of microchaetae on the notum. Only the bristles affected in the *ac* and *sc* mutations are shown. Empty boxes indicate that the corresponding bristles are present (wild-type phenotype). One-fourth-full, half-full and full filled boxes mean that the corresponding bristle(s) is(are) absent in over 10%, 50% or 90% of the flies, respectively. For scutellars, boxes one-fourth-full, half-full and full mean that 3-4, 2-3 or 0-1 scutellar bristles, respectively, are present. Their number was determined by the average among about 100 scored flies.


SC
AC
Genotypes
HU ASA PS AOR OC PV ANP SC MC A/P DC AVT
sc^D1 ; +/+
mod(mdg)^u1/mod(mdg4)^u1
Mod(mdg)-67,2
Mod(mdg4)^ΔBTB
Mod(mdg4)^ΔDD
Mod(mdg4)^GAF
Mod D33N
Mod H46D
Mod R47Q
Mod D33N/R47Q
Mod D33N/H46D
Mod D33/H46D^ΔDD
sc^ms ; +/+
mod(mdg)^u1/mod(mdg4)^u1
Mod(mdg)-67,2
Mod(mdg4)^ΔBTB
Mod(mdg4)^ΔDD
Mod(mdg4)^GAF
Mod D33N
Mod H46D
Mod R47Q
Mod D33N/ R47Q
Mod D33N/ H46D
Mod D33N/H46D^ΔDD
sc^v2 ; +/+
mod(mdg)^u1/mod(mdg4)^u1
Mod(mdg)-67,2
Mod(mdg4)^ΔBTB
Mod(mdg4)^ΔDD
Mod(mdg4)^GAF
Mod D33N
Mod H46D
Mod R47Q
Mod D33N/ R47Q
Mod D33N/ H46D
Mod D33N/H46D^ΔDD