



**b**

RECEPTOR	% SEQ. IDENTITY	CLOSEST HOMOLOGOUS	PUTATIVE LIGAND
MOR18-1	Olf558	100	Q8VGZ7 MOR18-1 Olf558 Nonanoic acid
MOR270-1	Olf166	95	Q8VF05 MOR271-1 Olf168 (+)-Fenchone
MOR162-6	Olf883	79	Q8VG90 MOR162-1 Olf983 4-Chromanone
MOR285-3P	Olf316	54	Q8VF05 MOR271-1 Olf168 (+)-Fenchone
		52	Q920P2 MOR174-9 Olf73 (+)-Fenchone
MOR211-4P	Olf1505	51	Q8VGS3 MOR180-1 Olf1019 Prenyl acetate
		49	Q8VF68 MOR205-1 Olf221 Dihydrojasmane
MOR124-1	Olf1344	46	Q8VG49 MOR260-1 Olf715 Decanoic acid
MOR286-1	Olf287	45	Q8VF44 MOR259-1 Olf1519 2-Coumaranone

**Supplementary Figure S5. Evolutionary and cheminformatics characterization of mDA-ORs. a)** Model of phylogenetic tree distribution of mDA-ORs. **b)** Putative ligands for each receptor based on ligands of the closest homologue in the phylogenetic tree and by a cheminformatic search.