

# The transcription factor Kruppel homolog 1 is linked to the juvenile hormone-dependent maturation of sexual behavior in the male moth, *Agrotis ipsilon*

Submitted by Emmanuel Lemoine on Thu, 02/05/2015 - 14:29

Titre	The transcription factor Kruppel homolog 1 is linked to the juvenile hormone-dependent maturation of sexual behavior in the male moth, <i>Agrotis ipsilon</i>
Type de publication	Article de revue
Auteur	Duportets, Line [1], Bozzolan, Françoise [2], Abrieux, Antoine [3], Maria, Annick [4], Gadenne, Christophe [5], Debernard, Stéphane [6]
Editeur	Elsevier
Type	Article scientifique dans une revue à comité de lecture
Année	2012
Langue	Anglais
Date	2012/04/01
Numéro	2
Pagination	158 - 166
Volume	176
Titre de la revue	General and comparative endocrinology
ISSN	1095-6840
Mots-clés	Animals [7], Fatty Acids, Monounsaturated/pharmacology [8], Indoles/pharmacology [9], Juvenile Hormones/pharmacology [10], Kruppel-Like Transcription Factors/metabolism [11], Male [12], Moths/metabolism/physiology [13], Sexual Behavior, Animal/drug effects [14]
Résumé en anglais	<p>In the male moth, <i>Agrotis ipsilon</i>, the behavioral response and neuronal sensitivity in the primary olfactory center, the antennal lobe (AL), to sex pheromone increase with age and juvenile hormone (JH) biosynthesis. Although JH has been shown to control this age-dependent plasticity, the underlying signaling pathway remains obscure. In this context, we cloned a full cDNA encoding the Kruppel homolog 1 transcription factor (AipsKr-h1) of <i>A. ipsilon</i>, which was found to be predominantly expressed in ALs, where its amount increased concomitantly with age and sex pheromone responses. Conversely, the expression of AipsKr-h1 protein in the antenna was age-independent. Moreover, the administration of JH in immature males or fluvastatin, an inhibitor of JH biosynthesis, in mature males induced an increase or a decline of the AipsKr-h1 protein level in ALs, respectively. This effect was suppressed with a combined injection of fluvastatin and JH. Our results showed that Aipskr-h1 is a JH-upregulated gene that might mediate JH action on central pheromone processing, modulating sexual behavior in <i>A. ipsilon</i>.</p>
URL de la notice	<a href="http://okina.univ-angers.fr/publications/ua7560">http://okina.univ-angers.fr/publications/ua7560</a> [15]
DOI	10.1016/j.ygcen.2012.01.005 [16]
Lien vers le document	<a href="http://dx.doi.org/10.1016/j.ygcen.2012.01.005">http://dx.doi.org/10.1016/j.ygcen.2012.01.005</a> [16]

**Liens**

- [1] [http://okina.univ-angers.fr/publications?f\[author\]=11368](http://okina.univ-angers.fr/publications?f[author]=11368)
- [2] [http://okina.univ-angers.fr/publications?f\[author\]=11369](http://okina.univ-angers.fr/publications?f[author]=11369)
- [3] <http://okina.univ-angers.fr/a.abrieux/publications>
- [4] [http://okina.univ-angers.fr/publications?f\[author\]=11371](http://okina.univ-angers.fr/publications?f[author]=11371)
- [5] <http://okina.univ-angers.fr/christophe.gadenne/publications>
- [6] [http://okina.univ-angers.fr/publications?f\[author\]=11372](http://okina.univ-angers.fr/publications?f[author]=11372)
- [7] [http://okina.univ-angers.fr/publications?f\[keyword\]=964](http://okina.univ-angers.fr/publications?f[keyword]=964)
- [8] [http://okina.univ-angers.fr/publications?f\[keyword\]=11427](http://okina.univ-angers.fr/publications?f[keyword]=11427)
- [9] [http://okina.univ-angers.fr/publications?f\[keyword\]=11428](http://okina.univ-angers.fr/publications?f[keyword]=11428)
- [10] [http://okina.univ-angers.fr/publications?f\[keyword\]=11429](http://okina.univ-angers.fr/publications?f[keyword]=11429)
- [11] [http://okina.univ-angers.fr/publications?f\[keyword\]=11430](http://okina.univ-angers.fr/publications?f[keyword]=11430)
- [12] [http://okina.univ-angers.fr/publications?f\[keyword\]=968](http://okina.univ-angers.fr/publications?f[keyword]=968)
- [13] [http://okina.univ-angers.fr/publications?f\[keyword\]=11431](http://okina.univ-angers.fr/publications?f[keyword]=11431)
- [14] [http://okina.univ-angers.fr/publications?f\[keyword\]=11432](http://okina.univ-angers.fr/publications?f[keyword]=11432)
- [15] <http://okina.univ-angers.fr/publications/ua7560>
- [16] <http://dx.doi.org/10.1016/j.ygcen.2012.01.005>

Publié sur *Okina* (<http://okina.univ-angers.fr>)