

# Two novel cockroach allergen proteins identified

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Turkestan and oriental cockroaches.  
Image courtesy ESA

(HealthDay)—Two novel allergen proteins from cockroaches have been identified, according to a study published online Sept. 12 in *Allergy*.

Yaqun Fang, from the Kunming Institute of Zoology in China, and colleagues purified and characterized two novel allergen proteins—Per a 11 (alpha-amylase) and Per a 12 (chitinase), with molecular weights around 55 and 45 kDa, respectively—from the midgut of cockroaches. Edman degradation, [mass spectrometry](#), and cDNA cloning were used to determine their primary sequences.

The researchers found that sera from 39 and 30 of 47 patients (83 percent and 63.8 percent, respectively) reacted to Per a 11 and Per a 12

on immunoblots. A competitive ELISA, basophil activation test, and skin prick test further confirmed the allergenicity of Per a 11 and Per a 12.

"They appear to be of importance for the [allergic reactions](#) induced by cockroach, and have a potential for component-based diagnosis of allergy," the authors write.

**More information:** [Abstract](#)  
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