

Supplementary Information

Table S-1 Information of peanut allergic patients

Code	Gender	Age	Clinical symptoms	Total IgE Level (IU/mL)	Specific IgE Level (IU/mL)
1	male	23y	Unrecorded	>200	2.8
2	male	8y	Urticaria	>200	4.8
3	male	23y	Urticaria	>200	5.8
4	female	10y	Allergic rhinitis	>200	2.1
5	male	5y	Unrecorded	>200	2.6
6	male	56y	Eczema	>200	2.0
7	male	49y	Chronic urticaria	<100	>100
8	female	33y	Chronic urticaria	>200	6.7
9	female	50y	Unrecorded	>200	3.8
10	male	3m12d	Eczema	138	3.5
11	male	5m5d	Unrecorded	744	17.5
12	female	3y4m	Pneumonia	136	3.5

Content of free amine

The content of free amine groups (α - and ϵ -amino groups) in each reaction system was quantified by Ortho-Phthaldialdehyde (OPA) absorption. Untreated Ara h 2, reduced Ara h 2 and RC-Ara h 2 were included in this study. Shown in figure S-1, after reducing by 12.50×10^{-5} g/mL of DTT, the number of free amine groups (include α - and ϵ -amino groups) was found increased by 38.2%. After cross-linking, the content of free amine groups was decreased by 16.2% compared with reduced Ara h 2.

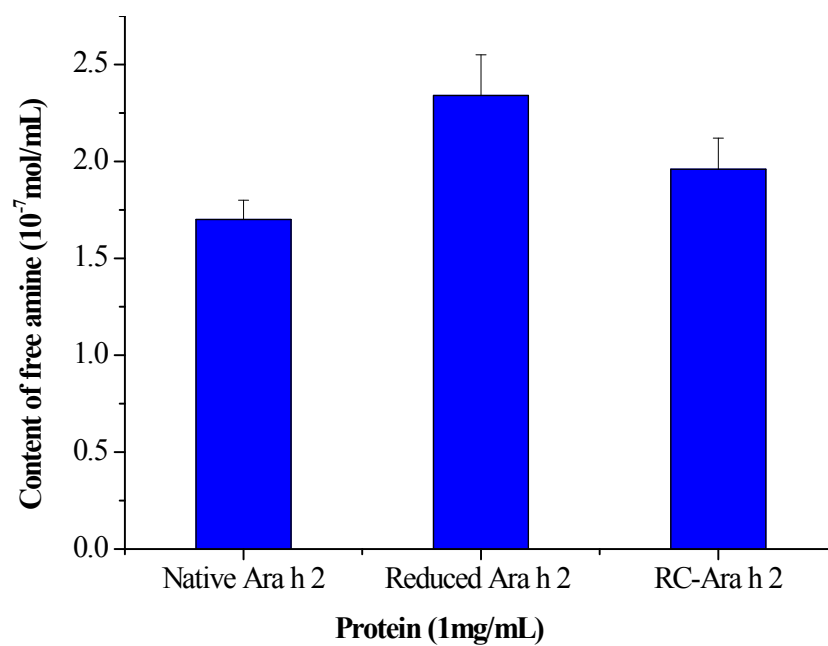


Figure S-1. The content of free amine group in each protein solution was determinate by OPA method, RC-Ara h 2 was reduced and cross-linked Ara h 2.