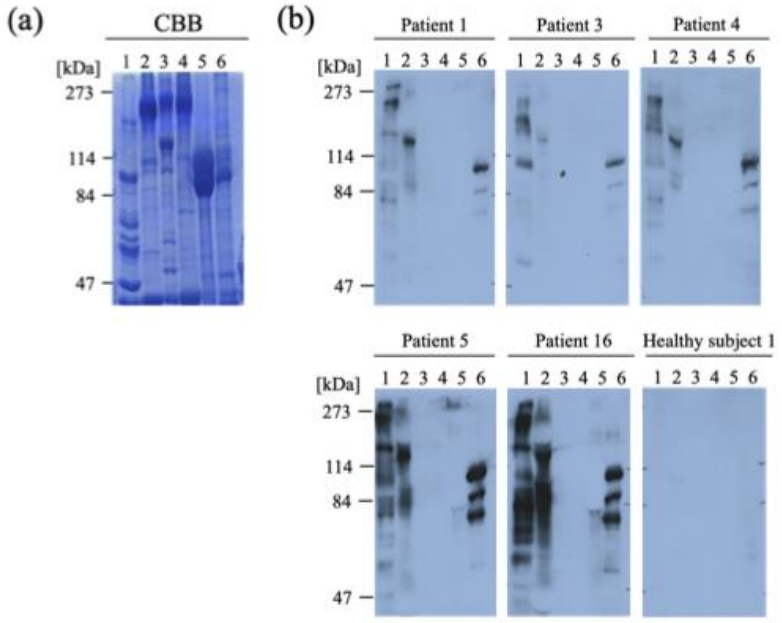
SUPPLEMENTARY MATERIAL

Supplementary Figure 1. IgE immunoblotting of beef, flounder meat and roe. (a) Gel stained with Coomassie Brilliant Blue (CBB); (b) IgE immunoblotting with sera of patients. Lane 1, water-soluble beef fraction; lane 2, water-insoluble beef fraction; lane 3, water-soluble flounder meat fraction; lane 4, water-insoluble flounder meat fraction; lane 5, water-soluble flounder roe fraction; lane 6, water-insoluble flounder roe fraction. Beef, meat and roe protein fractions were used at 25 mg/lane.



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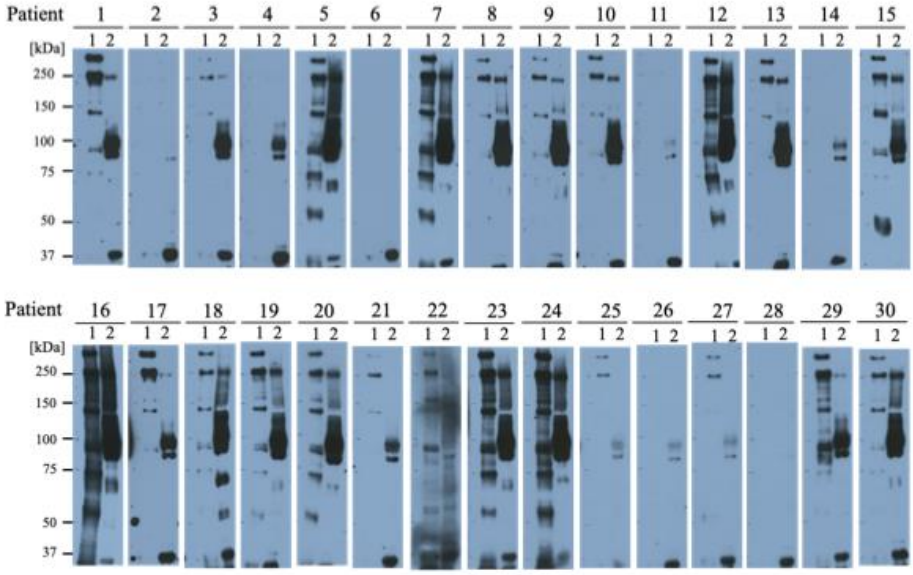
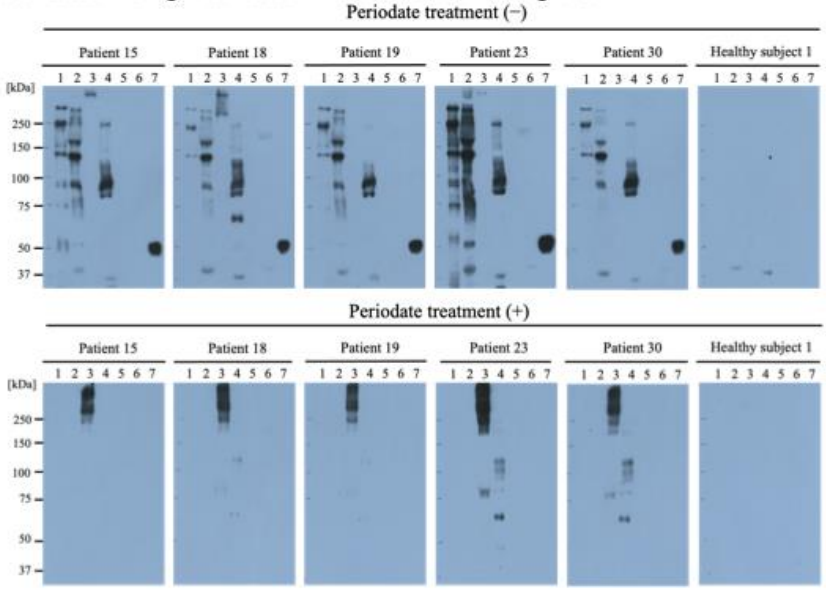
Supplementary Figure 2. IgE immunoblotting of water-soluble beef fraction and water-insoluble flounder roe fraction. Lane 1, water-soluble beef fraction (30 μg/lane); lane 2, water-insoluble flounder roe fraction (30 μg/lane). IgE binding to water-soluble beef fraction and water-insoluble flounder roe fraction were analyzed by immunoblotting using sera from all 30 patients.



doi: 10.18176/jiaci.0754

Supplementary Figure 3. Detection of the carbohydrate moiety of water-insoluble flounder roe allergens. Water-soluble and water-insoluble protein fractions of beef, flounder roe, and flounder meat as well as cetuximab were electrophoresed and transferred to PVDF membranes. The membranes were incubated with a solution containing 50 mM sodium acetate (pH 4.5) and 20 mM sodium periodate for 1 h in the dark and further incubated with patients' sera as previously described [6]. Lane 1, water-soluble beef fraction; lane 2, water-insoluble beef fraction; lane 3, water-soluble flounder roe fraction; lane 4, water-insoluble flounder roe fraction; lane 5, water-soluble flounder meat fraction; lane 6, water-insoluble flounder meat fraction; lane 7, cetuximab. All beef, meat and roe fractions were loaded at 25 mg/lane and cetuximab was loaded at 0.1 mg/lane.



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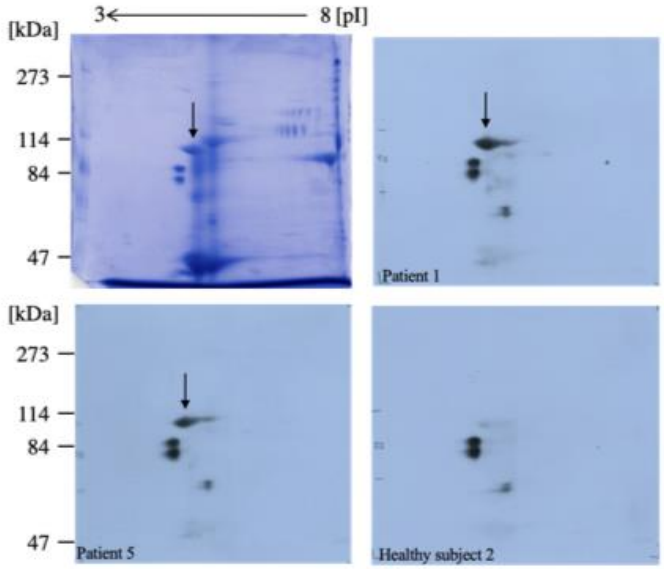
Supplementary Figure 4. IgE immunoblotting upon 2D-PAGE of water-insoluble flounder roe proteins. Water-insoluble flounder roe protein fraction (200 μg) was separated by 2D-PAGE and blotted with the sera of the patients with red meat allergy (patients 1, 5) and healthy subject 2.



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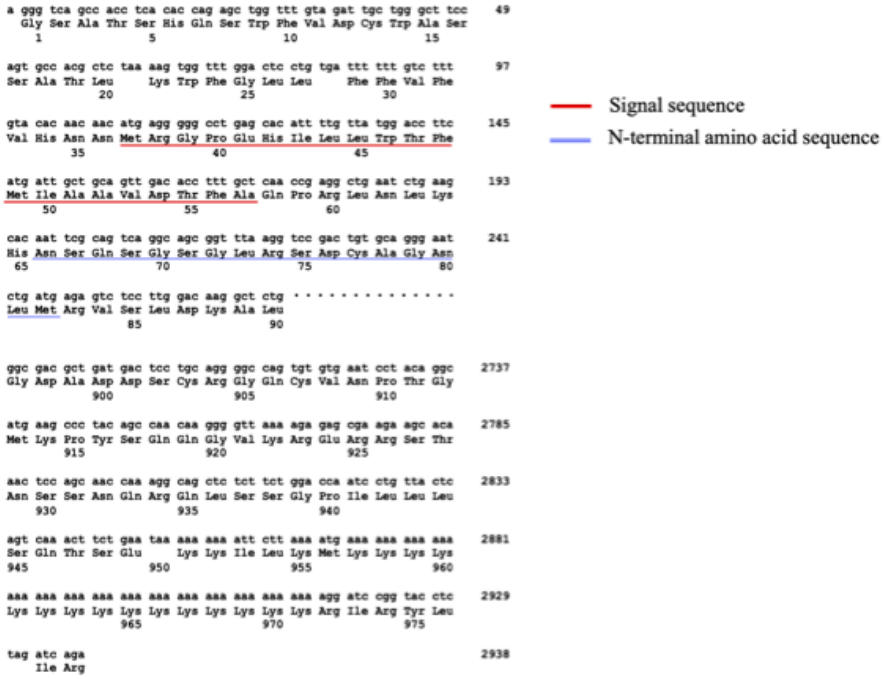
Supplementary Figure 5. Nucleotide sequence of the cDNA clone obtained using the 3′-RACE and 5′-RACE methods and its putative amino acid sequence. The signal sequence and the N-terminal amino acid sequence are underlined with red single and blue double lines, correspondingly.



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