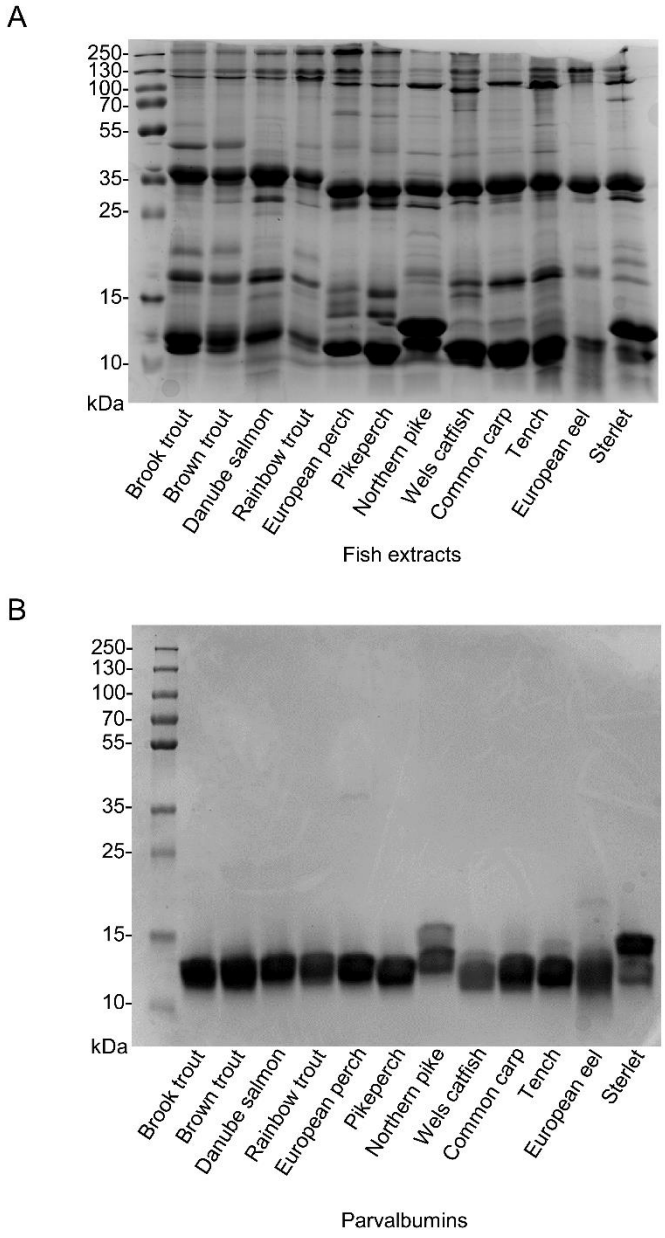
SUPPLEMENTARY MATERIAL

Figure S1. A) Protein profile (Coomassie Brilliant Blue staining) of the heated fish extracts used for the parvalbumin purification. B) Coomassie Brilliant Blue staining of the purified parvalbumins.



doi: 10.18176/jiaci.1069

Figure S2. Representation of the percentage of patients positive to all 12/ 7-11/ 2-6 or only one tested parvalbumin in multiplex IgE test.

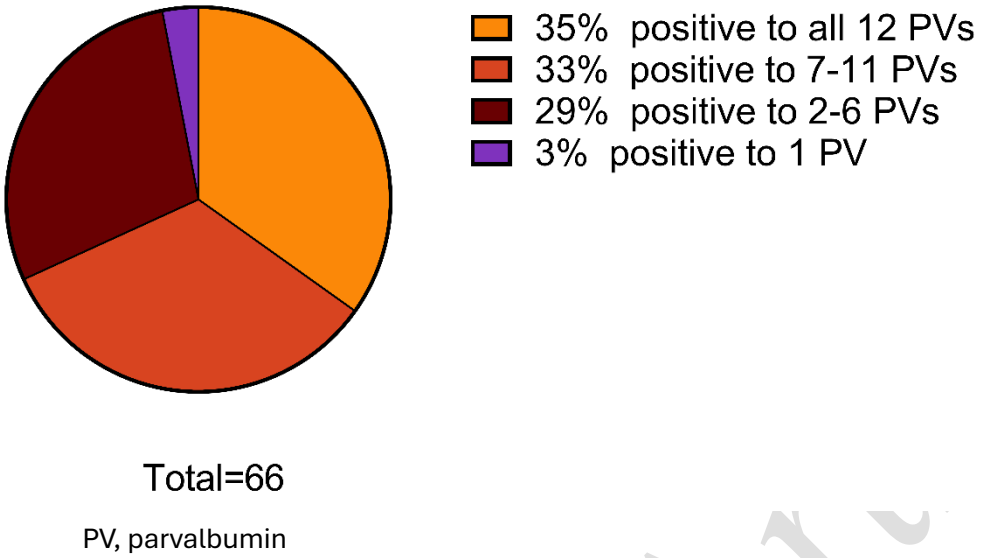
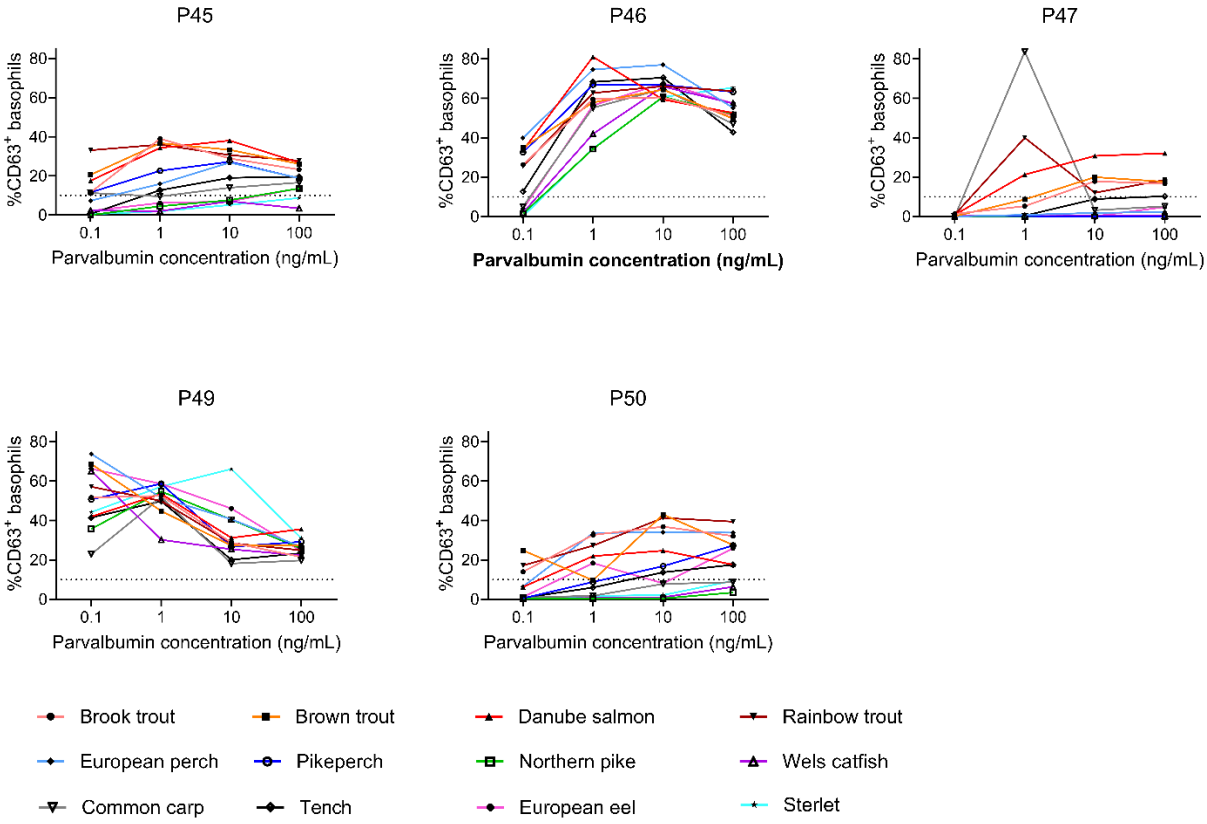


Figure S3. Basophil activation test. Percentages of CD63+ basophils (y-axes) upon stimulation with different concentrations of parvalbumins are represented for individual subjects allergic to fish.



doi: 10.18176/jiaci.1069

Figure S4. Comparison of amino acid sequence identities (%) of the parvalbumins sequences identified by mass spectrometry (detailed mass spectrometry data for each sequence are shown in Table S4). The sequences with coverage of >80% were used for sequence identify matrix, except for Wels catfish parvalbumin for which 77% coverage was used. The sequence identities were calculated in Clustal Omega (EMBL-EBI) using multiple sequence alignment.

Accession number	Species	Brook trout	Brook trout	Brown trout	Brown trout	Danube salmon	Rainbow trout	Rainbow trout	European perch	Pikeperch	Pikeperch	Northern pike	Wels catfish	Common carp	Common carp	Common carp	European eel	Sterlet
D3GME5	Brook trout	100,0																
D3GME6	Brook trout	65,7	100,0															
A0A673WFS7	Brown trout	98,2	65,7	100,0														
A0A673W6J5	Brown trout	66,7	97,2	66,7	100,0													
A0A4W5MDQ5	Danube salmon	98,2	65,7	100,0	66,7	100,0												
E0WDA3	Rainbow trout	65,7	100,0	65,7	91,2	65,7	100,0											
A0A8C7QUQ5	Rainbow trout	99,1	65,7	99,1	66,7	99,1	65,7	100,0										
A0A6A5E777	European perch	70,6	78,7	70,6	78,7	70,6	78,7	70,6	100,0									
A0A8C9YPR2	Pikeperch	67,0	75,9	67,0	75,9	67,0	75,9	67,0	94,5	100,0								
A0A8D0DAE7	Pikeperch	59,6	61,1	59,6	60,2	59,6	61,1	59,6	64,2	65,1	100,0							
P02619	Northern pike	68,2	91,6	68,2	93,5	68,2	91,6	68,2	80,4	76,6	61,7	100,0						
KAF7705229.1	Wels catfish	67,9	75,9	68,8	75,0	68,8	75,9	68,8	74,3	73,4	67,0	76,6	100,0					
P02618	Common carp	69,4	76,9	70,4	77,8	70,4	76,9	70,4	75,9	75,0	68,5	75,7	78,7	100,0				
Q8UUS2	Common carp	70,6	75,0	71,6	75,9	71,6	75,0	71,6	77,1	76,2	70,6	74,8	79,8	97,2	100,0			
A0A8C1XDB1	Common carp	67,9	75,9	68,8	76,9	68,8	75,9	68,8	78,0	77,1	67,9	76,6	78,9	89,8	91,7	100,0		
KAG5832188.1	European eel	71,6	75,0	71,6	75,0	71,6	75,0	71,6	77,1	76,2	69,7	75,7	78,0	84,3	84,4	77,1	100,0	
A0A444UY07	Sterlet	59,6	54,6	60,6	56,5	60,6	54,6	60,6	58,7	60,6	53,2	57,0	54,1	59,3	60,6	59,6	59,6	100,0

Figure S5. Quantification of parvalbunim-specific IgE (sIgE) for the patients' sera used in multiplex inhibition assays.