

Table S1. Demographic information and respiratory tests results from studied children according to location. STO: Stockholm VAL: Valencia.

Variable	STO	VAL
	(n = 47)	(n = 29)
	Mean / SD	Mean / SD
Gender	25 male & 22 female	18 male & 11 female
Age (y.o.)	13.07 / 2.82	10.32 / 2.4
Height (cm)	155.7 / 14.6	141.1 / 15.3
Weight (kg)	57.3 / 14.8	39.9 / 18.9
Body mass index	21.2 / 3.7	19.6 / 5.1
FEV1 predicted (%)	79.6 / 18.6	84.6 / 19.2
FeNO (ppb)	31.9 / 26.5	41.4 / 15.5

Data is summarized by mean and standard deviation (SD) in the case of numerical variabilities.

Table S2. Percentage of patients sensitized to other allergen sources (according to ISAC® results). STO: Stockholm VAL: Valencia.

Allergenic source Component	STO (n=47)	VAL (n=29)	p	Allergenic source Component	STO (n=47)	VAL (n=29)	p
<i>Aspergillus</i>	4.3	6.9	0.633	Latex	10.6	3.5	0.258
rAsp f 1	4.3	0		Hev b 1	0	0	
rAsp f 3	0	3.5		Hev b 3	0	0	
rAsp f 6	2.1	3.5		Hev b 5	0	0	
				Hev b 6	0	0	
				Hev b 8	10.6	3.5	
Wheat	4.3	3.5	0.86	Bee venom	2.1	3.5	0.727
Gliadin	2.1	3.5		Api m 1	2.1	3.5	
rTri a 19.0101	0	0		Api m 4	0	0	
nTri a 30	2.1	0					
Hazelnut	17	17.2	1	<i>Salsola pollen</i>	2.1	10.3	0.152
rCor a 8	2.1	10.3		nSal k 1			
nCor a 9	14.9	10.3					
Cashew nut	4.3	0	0.52	<i>Mercurialis pollen</i>	14.9	3.5	0.145
rAna o 2				rMer a 1			
Brazil nut	4.3	0	0.52	<i>Artemisia pollen</i>	19.1	17.2	1
rBer e 1				nArt v 1			
Mouse	12.8	6.9	0.703	Horse	4.3	10.3	0.363
nMus m 1				nEqu c 3			

Table S3. Sensitization to protein families: number of sensitized patients and specific IgE values (median, range) of those with values ≥ 0.30 ISU.

		Stockholm (n=47)	Valencia (n=29)
LTPs	nPru p 3	3 (1.16, 0.89 – 1.69)	8 (1.95, 0.48 – 9.96)
	rPar j 2	1 (0.62)	8 (5.52, 0.34 – 45.1)
	nArt v 3	4 (0.78, 0.63 – 0.93)	5 (1.07, 0.33 – 3.27)
	rCor a 8	1 (0.58)	3 (0.76, 0.61 – 1.14)
Tropomyosins	nPen m 1	2 (12.5, 0.89 – 24.1)	12 (16, 0.41 – 79.6)
	rDer p 10	3 (1.07, 0.51 – 22.2)	12 (9.6, 1.19 – 74.3)
	nBla g 7	2 (14.2, 1.76 – 26.6)	12 (9.6, 0.46 – 77.3)
	rAni s 3	2 (7.46, 0.90 – 76.4)	12 (8.27, 0.82 – 15.7)
Prophyllines	rBet v 2	5 (1.73, 0.56 – 7.23)	1 (0.59)
	rPhl p 12	4 (1.74, 0.82 – 7.93)	1 (0.36)
	rHev b 8	5 (2, 0.67 – 15)	1 (0.81)
CCDs	nCup a 1	5 (1.09, 0.80 – 1.59)	13 (2.92, 0.30 – 89.8)
	nCry j 1	2 (0.75, 0.62 – 0.87)	9 (1.85, 0.49 – 33.7)
	nPla a 2	4 (2.49, 1.08 – 7.52)	10 (0.76, 0.33 – 4.96)
	nPhl p 4	18 (4, 0.58 – 41.6)	10 (0.91, 0.35 – 8.36)
Uteroglobulin	rFel d 1	34 (32.9, 0.87 – 90.9)	11 (13.1, 3.07 – 77.2)
Lipocalins	rFel d 4	14 (9.03, 0.80 – 62.7)	6 (1.61, 0.58 – 18.6)
	rCan f 1	12 (21.4, 3.35 – 38.9)	14 (17.9, 0.54 – 100)
	rCan f 2	8 (8.56, 4.82 – 34.6)	4 (16.9, 8.6 – 22)
Serum albumins	nFel d 2	1 (4.02)	6 (0.65, 0.31 – 81.2)
	nCan f 3	3 (0.66, 0.65 – 9)	2 (43.9, 20 – 67.7)
	nEqu c 3	1 (1.17, 0.41 – 1.93)	3 (12.6, 0.48 – 20.8)
Storage proteins	rAna o 2	2 (0.63, 0.33 – 0.93)	-
	nAra h 1	18 (2.25, 0.38 – 23.3)	2 (0.85, 0.45 – 1.24)
	nAra h 2	6 (15.3, 1.1 – 92.1)	2 (23.1, 4.9 – 41.3)
	nAra h 3	6 (1.19, 0.35 – 5.3)	2 (0.85, 0.30 – 1.39)
	rBer e 1	2 (1.96, 0.77 – 3.16)	-
	nCor a 9	7 (1.19, 0.89 – 7.84)	3 (0.42, 0.34 – 0.83)
	nGly m 5	5 (0.56, 0.31 – 1.38)	1 (0.30)
	nGly m 6	8 (2.06, 0.30 – 11.8)	2 (1.07, 0.30 – 1.84)
PR-10 proteins	nSes i 1	4 (1.71, 1.09 – 11.6)	-
	rBet v 1	27 (26.1, 0.75 – 93.3)	1 (26.1)
	Pru p 1	21 (5.32, 0.44 – 36.7)	1 (30.9)
	rGly m 4	9 (0.7, 0.42 – 16.5)	1 (2.08)
	rAra h 8	11 (2.78, 0.34 – 19.4)	-
	rApi g 1	6 (9.63, 0.48 – 16.4)	-
	rCor a 1.0101	17 (1.08 (0.35 – 12.4)	-

	rCor a 1.0401	21 (7.27, 0.36 – 33.8)	1 (9.36)
	rMal d 1	16 (5.33, 0.97 – 41.1)	1 (17.2)
Cysteine protease	nAct d 1	7 (2.25, 0.82 – 4.27)	3 (2.86, 0.34 – 3.21)
Thaumatina- like	nAct d 2	4 (1.21, 0.71 – 2.86)	9 (6.4, 0.34 – 19.7)
Kiwelin	nAct d 5	1 (0.41)	-
Alt a 1-related	rAlt a 1	7 (2.82, 0.99 – 68.4)	11 (57.3, 0.39 – 71.5)
Enolase	rAlt a 6	8.5 (7.24, 1.33 – 14.5)	9 (16.4, 2.03 – 41.7)