

**Supplementary Table 2. Epitope Distribution in Different Food Allergens**

Name		T cell	B cell	Total Epitopes
<b>Common Food Allergens</b>				
Cow's milk	Alpha S1 casein	46	168	<b>214</b>
	Beta-lactoglobulin	61	122	<b>183</b>
	Kappa-casein	0	119	<b>119</b>
	Beta-casein	0	111	<b>111</b>
	Alpha-S2-casein	1	68	<b>69</b>
	Alpha-lactalbumin	0	43	<b>43</b>
	Major allergen beta-lactoglobulin	0	34	<b>34</b>
Peanut	Allergen Ara h 1, clone P41B precursor	0	191	<b>191</b>
	Glycinin	0	71	<b>71</b>
	2S protein 1	26	11	<b>37</b>
	Allergen Arah3/Arah4	0	35	<b>35</b>
	Conglutin-7 precursor	0	30	<b>30</b>
	Ara h 2.01 allergen	0	24	<b>24</b>
	Allergen II	0	14	<b>14</b>
	Seed storage protein SSP2	0	1	<b>1</b>
Chicken egg	Ovomucoid	55	118	<b>173</b>
	Ovalbumin	29	28	<b>57</b>
	Peptidyl-prolyl cis-trans isomerase B	0	2	<b>2</b>
	Ovotransferrin (Allergen Gal d 3)	1	0	<b>1</b>
	Serum albumin (Gal d 5)	0	1	<b>1</b>
	Serine proteinase inhibitor, clade B	0	1	<b>1</b>
Common Wheat	Glutenin	0	52	<b>52</b>
	Monomeric alpha-amylase inhibitor	0	51	<b>51</b>
	Omega-5 gliadin	0	10	<b>10</b>
	Type 1 non-specific lipid transfer protein	0	7	<b>7</b>
	Alpha-amylase inhibitor 0.28	0	5	<b>5</b>
	Gamma-gliadin	0	2	<b>2</b>
	27K protein	0	1	<b>1</b>
Soybean	Glycinin G2	0	30	<b>30</b>
	P34 probable thiol protease precursor	0	26	<b>26</b>
	Beta-conglycinin, alpha chain	0	5	<b>5</b>
	Glycinin G1 precursor	0	4	<b>4</b>
	Bd 30K (34 kDa maturing seed protein)	0	3	<b>3</b>
	Gly m 1	0	2	<b>2</b>
	Profilin-1	0	1	<b>1</b>
	Stress-induced protein SAM22	1	0	<b>1</b>
Common hazel nut	Major allergen Cor a 1.0401	27	0	<b>27</b>
	11S globulin-like protein	0	25	<b>25</b>
	Major pollen allergen Cor a 1	0	2	<b>2</b>
Cashew	2s albumin	0	16	<b>16</b>
	Vicilin-like protein	0	11	<b>11</b>
English walnut	Seed storage protein	0	22	<b>22</b>
	Albumin seed storage protein	0	5	<b>5</b>
Brazil nut	Allergen Ber e 1	24	5	<b>29</b>
	2S albumin	0	2	<b>2</b>
Brown shrimp	Pen a 1 allergen	0	51	<b>51</b>
Cod fish	Parvalbumin beta	0	10	<b>10</b>
Sesame seed	2S seed storage protein 1	0	11	<b>11</b>
<b>Other Plant Species</b>				
Buckwheat	Fag e 1	0	26	<b>26</b>

	13S globulin	0	11	<b>11</b>
	13S globulin seed storage protein 1	0	2	<b>2</b>
Apple	Mal d 3	0	24	<b>24</b>
	Major allergen Mal d 1	1	3	<b>4</b>
Tomato	Probable pectate lyase P59	0	2	<b>2</b>
	Acid beta-fructofuranosidase	0	1	<b>1</b>
Rice	Hypothetical protein 115471171	0	3	<b>3</b>
	Hypothetical protein 115482336	0	2	<b>2</b>
Common oat	Avenin precursor (clone pAv122)	3	0	<b>3</b>
	Gamma 3 avenin	1	0	<b>1</b>
Sweet cherry	Major allergen Pru av 1	1	3	<b>4</b>
Mango	Ripening-related pectate lyase	0	1	<b>1</b>
Apricot	Major allergen Pru ar 3	0	2	<b>2</b>
Plum	Major allergen Pru d 3	0	3	<b>3</b>
Indian jujube	Allergen Ziz m 1	0	4	<b>4</b>
Peach	Non-specific lipid transfer protein (Pru p 3)	43	17	<b>60</b>
Oriental mustard	Lactoylglutathione lyase	0	9	<b>9</b>
Yellow mustard	Allergen Sin a 1	0	2	<b>2</b>
Muskmelon	Profilin	0	12	<b>12</b>
Chinese cucumber	Ribosome-inactivating protein	0	1	<b>1</b>
Celery	Major allergen Api g 1	14	0	<b>14</b>
Goat grass	HMW glutenin subunit	1	0	<b>1</b>
Naked oat	Avenin gamma-3 - small naked oat	1	0	<b>1</b>
<b>Other Animal Species</b>				
Human Breast milk	Beta-casein precursor	0	6	<b>6</b>
Cow gelatin	Collagen, type I, alpha 2	0	3	<b>3</b>
Horned turban snail	Major allergen Tur c1	0	2	<b>2</b>
Red abalone	Tropomyosin	0	1	<b>1</b>
Nematode parasite	UA3-recognized allergen	0	1	<b>1</b>