**Supplementary Table 1. Predicted peptides with homology to previously known *Anisakis* allergens**. Predicted peptides inferred from the transcriptomes of third stage larvae of *Anisakis simplex* and *Anisakis pegreffii* with homology to previously known *Anisakis* allergens (e-value cut-off: <1e-5, identity cut-off: >70%) available in the AllergenOnline database. (<http://www.allergenonline.com/about.shtml>) (Nr = non-redundant database).

|  |  |  |  |
| --- | --- | --- | --- |
| Unigene ID | Size (bp) | Closest match in Nr | Closest match in AllergenOnline |
| *Anisakis simplex* |  |  |  |
| CL1474.Contig1\_AS1A | 369 | Paramyosin [*Toxocara canis*] | Paramyosin, Ani s 2 |
| CL1474.Contig2\_AS1A | 468 | Paramyosin; Allergen=Ani s 2 [*Anisakis simplex*] | Paramyosin, Ani s 2 |
| CL1474.Contig3\_AS1A | 240 | Paramyosin; Allergen=Ani s 2 [*Anisakis simplex*] | Paramyosin, Ani s 2 |
| Unigene6540\_AS1A | 58 | paramyosin isoform [*Anisakis simplex*] | Paramyosin |
| Unigene9109\_AS1A | 84 | Paramyosin; Allergen=Ani s 2 [*Anisakis simplex*] | Paramyosin |
| CL2300.Contig3\_AS1A | 281 | Ani s 12 allergen precursor [*Anisakis simplex*] | Ani s 12 allergen |
| CL2300.Contig4\_AS1A | 256 | Ani s 12 allergen [*Anisakis simplex*] | Ani s 12 allergen and precursor |
| Unigene8429\_AS1A | 193 | Major allergen Ani s 1 [*Anisakis simplex*] | Ani s 1 allergen |
| Unigene12957\_AS1A | 94 | Ani s 4 allergen [*Anisakis simplex*] | Ani s 4 allergen |
| CL2474.Contig1\_AS1A | 156 | Ani s 9 allergen precursor [*Anisakis simplex*] | Ani s 9 allergen precursor |
| CL2802.Contig2\_AS1A | 130 | Ani s 11-like protein precursor [*Anisakis simplex*] | Ani s 11 allergen precursor |
| CL2802.Contig3\_AS1A | 124 | Ani s 11-like protein precursor [*Anisakis simplex*] | Ani s 11 allergen precursor |
| CL3720.Contig2\_AS1A | 142 | Ani s 11-like protein precursor [*Anisakis simplex*] | Ani s 11 allergen precursor |
| Unigene9538\_AS1A | 98 | Ani s 11 allergen precursor [*Anisakis simplex*] | Ani s 11 allergen precursor |
| CL61.Contig1\_AS1A | 193 | SXP/RAL-2 family protein 2 isoform 1 [*Anisakis simplex*] | SXP/RAL-2 family protein 2  |
| Unigene11210\_AS1A | 162 | SXP/RAL-2 family protein [*Anisakis simplex*] | SXP/RAL-2 family protein |
| Unigene11525\_AS1A | 1424 | UA3-recognized allergen, partial [*Anisakis simplex*] | UA3-recognized allergen, partial  |
| Unigene13306\_AS1A | 64 | Troponin-like protein [*Anisakis simplex*] | Troponin-like protein |
| Unigene12103\_AS1A | 276 | Tropomyosin [*Ascaris lumbricoides*] | Tropomyosin |
| Unigene8904\_AS1A | 63 | Troponin isoform 2 [*Ascaris suum*] | Troponin C |
| CL140.Contig1\_AS1A | 653 | Ani s 13 [*Anisakis simplex*] | Ani s 13 allergen |
| Unigene6130\_AS1A | 1269 | Ani s 14 [*Anisakis simplex*] | Ani s 14 allergen |
| *Anisakis pegreffii* |  |  |  |
| Unigene3736\_AP1A | 369 | Paramyosin [*Toxocara canis*] | Paramyosin |
| Unigene9538\_AP1A | 214 | Paramyosin; Allergen=Ani s 2 [*Anisakis simplex*] | Paramyosin |
| Unigene9537\_AP1A | 84 | Paramyosin; Allergen=Ani s 2 [*Anisakis simplex*] | Paramyosin |
| Unigene8558\_AP1A | 174 | Major allergen Ani s 1 | Ani s 1 allergen |
| CL1482.Contig1\_AP1A | 94 | Ani s 4 allergen [*Anisakis simplex*] | Ani s 4 allergen |
| CL1482.Contig2\_AP1A | 94 | Ani s 4 allergen [*Anisakis simplex*] | Ani s 4 allergen |
| Unigene10343\_AP1A | 139 | Ani s 9 allergen precursor [*Anisakis simplex*] | Ani s 9 allergen precursor |
| Unigene725\_AP1A | 101 | Ani s 10 allergen precursor [*Anisakis simplex*] | Ani s 10 allergen precursor |
| Unigene8184\_AP1A | 169 | SXP/RAL-2 family protein [*Anisakis simplex*] | SXP/RAL-2 family protein |
| CL1065.Contig1\_AP1A | 1288 | UA3-recognized allergen, partial [*Anisakis simplex*] | UA3-recognized allergen, partial |
| CL1065.Contig2\_AP1A | 1380 | UA3-recognized allergen, partial [*Anisakis simplex*] | UA3-recognized allergen, partial |
| Unigene2933\_AP1A | 64 | Troponin-like protein [*Anisakis simplex*] | Troponin-like protein |
| Unigene9089\_AP1A | 63 | Troponin isoform 2 [*Ascaris suum*] | Troponin C |
| Unigene11858\_AP1A | 276 | Tropomyosin [*Ascaris lumbricoides*] | Tropomyosin |
| Unigene11859\_AP1A | 276 | Tropomyosin [*Ascaris lumbricoides*] | Tropomyosin |
| CL2325.Contig1\_AP1A | 442 | Ani s 13 [*Anisakis simplex*] | Ani s 13 allergen |
| Unigene5124\_AP1A | 448 | Ani s 14 [*Anisakis simplex*] | Ani s 14 allergen |