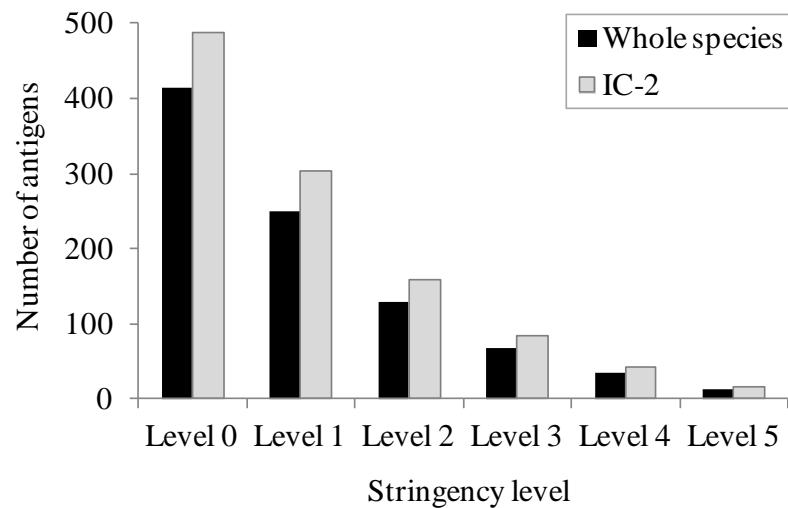


Figure S1. Number of antigens after applying different criterion stringency for selection.

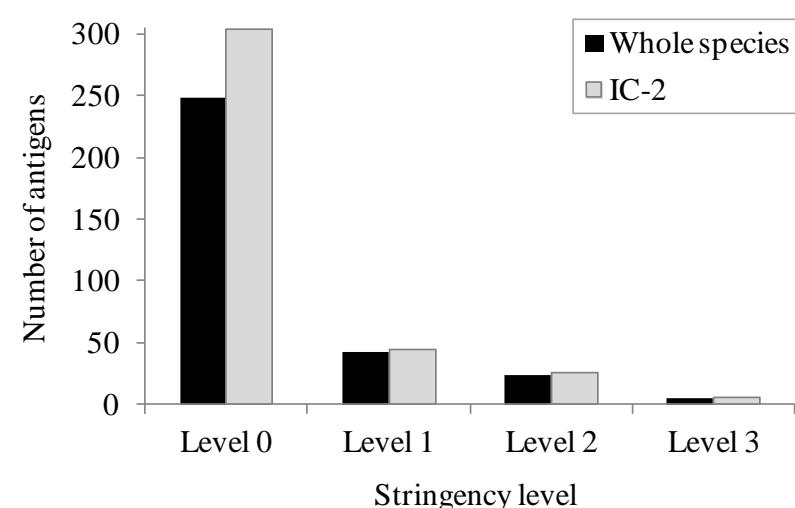
**A**

Antigenicity



**B**

Centrality



(A) Stringency levels:

| Level | B-cell antigenic zones | DP supertype alleles (epitopes) |
|-------|------------------------|---------------------------------|
| 0     | $\geq 0$               | $\geq 0$ (0)                    |
| 1     | $\geq 1$               | $\geq 1$ (2)                    |
| 2     | $\geq 2$               | $\geq 2$ (4)                    |
| 3     | $\geq 3$               | $\geq 3$ (6)                    |
| 4     | $\geq 4$               | $\geq 4$ (8)                    |
| 5     | $\geq 5$               | $\geq 5$ (10)                   |

(B) Stringency levels:

| Level | PPIs <sup>a</sup> | BC <sup>b</sup> |
|-------|-------------------|-----------------|
| 0     | $\geq 0$          | $\geq 0$        |
| 1     | $\geq 3$          | $\geq 0.001$    |
| 2     | $\geq 5$          | $\geq 0.005$    |
| 3     | $\geq 10$         | $\geq 0.02$     |

<sup>a</sup> PPIs: number of protein-protein interactions.

<sup>b</sup> BC: betweenness centrality.