### S2 Table.

<table>
<thead>
<tr>
<th>Similarity evaluation</th>
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<tbody>
<tr>
<td><strong>INPUT</strong>: a dataset, D, with A features (autoantigens) and N instances ((n_{AIH}=15) and (n_{HD}=78) measurements). R is the number of reduced subsets</td>
</tr>
</tbody>
</table>

For each run \(i, i=1,2,\ldots,R\)

1. randomly partition data into reduced subsets \(D_i\) including all positive instances \((n_{AIH}=15)\) and a set of negative instances \((n_{HD}=24)\)

2. perform feature selection
   - \((i)\) train \(y\) classifiers \((y=2)\) with a 10 fold cross-validation on the reduced subset
   - \((ii)\) obtain a ranked list \(L_{iy}\)

End

Finally, calculate all pairwise similarity comparison \((R(R-1))/2\) possible comparisons) and averaged them to obtain an overall evaluation of the degree of similarity, \(S\), between the autoantigen lists

**OUTPUT**: similarity index \(S_{tot}\) for each considered classifier