Welcome to SurfaceGenie !

SurfaceGenie is a tool for identifying proteins of interest based on their presence at the cell surface and their presence amongst samples. SurfaceGenie will generate a score for each protein based on how likely it will be found on the cell surface, how many samples it is present in, and the magnitude of the measurement variable (i.e. PSM). If you are not interested in weighing in the likelihood of the protein being present on the cell surface, you may remove this parameter. More details on parameters can be found in the Data Processing Options and Data Export Options sections below.

SurfaceGenie is in its early stages of development and we hope to provide you with more options as we develop it further. We would also welcome any feedback which you can submit at the Contact page.

SurfaceGenie Tools

SurfaceGenie

SurfaceGenie accepts a csv file upload of proteins identified in a set of samples and then returns a score for each protein indicative of its usefulness as a marker for a particular sample it appears in. SurfaceGenie was originally developed as a tool for scoring proteins as cell surface markers using peptide spectral match numbers obtained from searched mass spectrometry data. To this end, each protein is matched with a Surface Protein Concensus (SPC) score which is a measure of the liklihood that a particular protein will be found at the cell surface. This score is then weighed in to the calculation of the Genie Score. This is the default setting, however, if you wish to ignore the SPC score you may do so. Alternatively, if you are only interested in retrieving SPC scores for your proteins of interest we provide this option as described below in 'SPC Score Lookup'.

Several tools are available within SurfaceGenie:

* Data Input: Check your uploaded data.
* Heatmap: Visualize your input data.
* Plots: Visualize SurfaceGenie output.
* CSV Download: Download an updated file with columns selected for export appended to the end of your original data.

SPC Score Lookup

If you are interested in retrieving only the Surface Protein Concensus (SPC) score for your proteins of interest you may do so at this page. You may either upload a csv file containing UniProt accession numbers or search individual UniProt accession numbers.

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