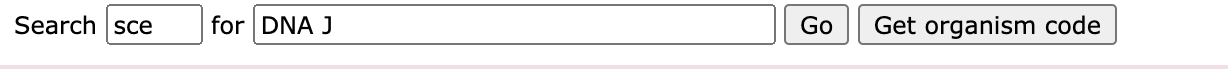
How to look corresponding KOs (Kegg Orthologs) for genes of interest

Load KEGG: <https://www.genome.jp/kegg/kegg2.html>

Click on “Genes”

On the second row,

Insert “sce” for “Search” and “your gene name” in “for”

Sce is the code name for the organism *Saccharomyces cerevisiae*

Ex. I want to look for the KO for the DNA J gene (a classic gene involved in stress resistance)

Click “Go”

A new page will load with all KOs with partial or complete matched of the gene you are looking for.

In this case, I would choose the second item, YFL016C, which exactly corresponds to the gene I am looking for. If you click on it, a new page will open with the KO number (K03686) of the DNA J gene for *S.cerevisiae*. It will also provide both th nucleotidic and protein sequence of the gene.

Let’s now try with another gene: Hog1 (related to osmotic stress).

We follow the same search pattern as above:



Click “Go”

Only one item shows up: YLR113W. Once we click on it, we get a new page with protein and nucleotide sequence. Unlike the DNA J above, we can also find on the right a link to the “KEGG pathway” for this entry. Click on “sce04011”, MAPK signaling pathway.

This will show where in the High osmolarity pathway is Hog1 gene located, so we can have an idea of other genes it controls downstream and which genes activate it upstream.

Diagram

Description automatically generated