

```

seqfile = seqfile.txt      * sequence data filename
treefile = tree.H0.txt    * tree structure file name [CHANGE THIS]
outfile = results.txt     * main result file name

noisy = 9                  * 0,1,2,3,9: how much rubbish on the screen
verbose = 1               * 1:detailed output
runmode = 0               * 0:user defined tree

seqtype = 1               * 1:codons
CodonFreq = 2            * 0:equal, 1:F1X4, 2:F3X4, 3:F61

model = 0                 * 0:one omega ratio for all branches [FOR MODEL H0]
                        * 1:separate omega for each branch
                        * 2:user specified dN/dS ratios for branches [FOR MODELS H1-H3]

NSsites = 0              *

icode = 0                 * 0:universal code

fix_kappa = 0            * 1:kappa fixed, 0:kappa to be estimated
kappa = 2                 * initial or fixed kappa

fix_omega = 0            * 1:omega fixed, 0:omega to be estimated
omega = 0.2              * initial omega

```

NOTE: By changing the treefile read by codeml, you are changing among “branch models” represented within the different treefiles shown below. Remember that these “tree models” specify different biological hypotheses testable via LRTs. Each “branch model” differs according to the branch, or branches, that are identified with a “branch mark” (i.e., #1, #2, etc.) as having unique selection pressure (d_N/d_S).

* tree.H0.txt (H_0 in Table 3):

```

* model = 0
* (X02152Hom,U07178Sus,(M22585rab,((NM017025Rat,U13687Mus),
* ((AF070995C,(X04752Mus,U07177Rat)),(U95378Sus,U13680Hom)),(X53828OG1,
* U28410OG2)))));

```

* tree.H1.txt (H_1 in Table 3):

```

* model = 2
* (X02152Hom,U07178Sus,(M22585rab,((NM017025Rat,U13687Mus),((AF070995C,
* (X04752Mus,U07177Rat)),(U95378Sus,U13680Hom))#1,(X53828OG1,U28410OG2)
* )));

```

* tree.H2.txt (H_2 in Table 3):

```

* model = 2
* (X02152Hom,U07178Sus,(M22585rab,((NM017025Rat,U13687Mus),((AF070995C
* #1,(X04752Mus #1,U07177Rat #1)#1,(U95378Sus #1,U13680Hom #1)
* #1)#1,(X53828OG1,U28410OG2)))));

```

* tree.H0.txt (H_3 in Table 3):

```

* model = 2
* (X02152Hom,U07178Sus,(M22585rab,((NM017025Rat,U13687Mus),((AF070995C
* #1,(X04752Mus #1,U07177Rat #1)#1,(U95378Sus #1,U13680Hom #1)
* #1)#1,(X53828OG1 #2,U28410OG2 #2)#2)))));

```