

Supplementary Figure 2: Sequence alignment of BadI from *R. palustris*, Oah from *T. aromatica* and Ferp_1040 from *F. placidus*

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Ferp_1040 -----MADYKEIIYDENWYT-----HTALIAINRPH
BadI -----MQFEDLIYEIRN-----GVAWIIINRPD
Oah MNPTTQKLVEQNAPAQLVDHNLVPETVCPGVLYEKRPARNLKGEVVPGLYNVWISLDNPK
      ::*: . . * :*:*.

Ferp_1040 EYNSYTLTTLREMVDAIEKAMWNDDIQFIVLTGVGDKAFCCTGGNVHEYAEETYTKKPSDFW
BadI KMNAFRGTTCCDELKALYKAGYDKDVGAIVLAGAGDRAFCTGGDQSTHDGNYDGRG----
Oah QYNSYTTDMVKGLILAFRAASCARDVASVFTAVGDKAFCCTGGNTKEYAEYYAGNPQEYR
      : *:: : * : * * : :*:::..**:*:*:*:*: : * .

Ferp_1040 KWGEIYGRVFDMMHCGKPVVIARVNGVTAGGGFEFVCACDLAVASENARFISPGPRVGMT
BadI TVGLPMEELHTAIRDVPKPVIARVQGYAIGGGNVLATICDLTICSEKAIFGQVGPKMGSV
Oah QYMRLFNDMVSAILGCDKPVICRVNGMRIGGGQEIGMAADFTVAQDLANFGQAGPKHGSA
      : * ****.**: * ** : .*:::..: * * . ** : * .

Ferp_1040 SIGGLSQWLPLHIGLKRAAEIVMMSSEIDAKTAYEWGIVNAVVPQEKLD-----
BadI DPGYGTAFLARVVGEKKAREIWYMCRRYSGKEAEAMGLANLVCVPHDEL-----
Oah AIGGATDFLPLMIGCEQAMVSGTLCEPFSAHKANRLGICMQIVPALKVDGKFIANPLVVT
      * : :*. :* :*: :. ..: * *: ** :*:

Ferp_1040 -----EKVKEMIDRMLDLSPSSLWYF
BadI -----AEVQKWGEELCERSPTALAI
Oah DRYLDEFGRIIHGEFKTGDELAAGKELMKRGEIDLSSLDEAVEKLCAKLISTFPECLTKS
      *:: .: . * .*

Ferp_1040 KVHLNWWRDVLVWRLTWEHGKAWFSLNIGGVEPSEGLWAFKQKRKARMREIRDR-IGKGM
BadI KRSFNMDTAHQAGIAGMG-MYALKLYDTEESREGVKALQEKRKPEFRKYIK-----
Oah FEELRKPKLDAWNRNKENSRAWLALNMMN-EARTGFRAFNEGNETGREIEFTDLRQALA
      :. : * * . * . *::: .* *:

Ferp_1040 PRYPYGPLMKKCEKCGAEFLPDFSKFCLNCGAKLE
BadI -----
Oah KGMPWTPELIESLMPGAK-----

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