Bordetella pertussis ;Il[s)L_[^s Ifcai M_nÿ $P_lmcih -*,%

The Operon Bordetella pertussis ;LIM P_lmcih -*,]ihn[chm /14. 3,)g_l ifcaiho]f_inc^_ jli_m l_jl_m_hncha /4,, ij_h l_[^cha `l[g_m $IL@m% i` B. pertussis mnl[ch Nib[g[Ca_hig_*?[]b jli_]ihn[chm [h[gchi fche_l [n cnm 1# end.

M_ko_h]_miol]_[h^ IL@m_f_]ncih

/0/2 IL@m_ko_h]_m`il B. pertussis q_l_ i\n[ch_^`lig nb_L_`m_k_hnls H=Y,,.5.5*- [h^[^^cncih[f IL@m_ko_h]_m q_l_ i\n[ch_^`lig M[ha_l Chmncnon_A_h_>< ^[n[\[m_$bnnj6++qqq*a_h_^*ila+%* Nb_L_`m_k H=Y,,.5.5*- ][h\_[]]_mm_^ nblioab nb_H[ncih[f=_hn_l `il <cin_]bhifias q_\mcn_ $bnnj6++qqq*h]\c*hfg*hcb*aip+a_hig_m+`l[gce* ]ac9^\8A_hig_"ac8/-1%* Nb_]ig\ch_^ ^[n[m_n b[m /4,2 IL@m_ko_h]_m* Nb_l_ [l_mcr IL@m i` nbcm]ig\ch_^ ^[n[m_n nb[n b[p_mbiln il bcabfs A= lc]b m_ko_h]_([h^][h hin sc_f^ mocn[\f_[ll[s ifcaim*

Jli_^_mcah [h^ m_f_]ncih lof_m

Nb_3,)g_l jli_m [l_m_f_]n_^ qcnb [h ijncg [f m_n i` j[l[g_n_lm [m^_m]lc_^ _fiq6

-* Nb_ g_fncha n_g j_l[nol_m $$T_m$$% i` nb_ jli\_m [l_l_mnlc]n_^ qcnbch nb_l[ha_ i` 4, © 1 ¨=* Ng cm][f]of[n_^ omcha the following formula:

$$T_m$$ 8 4-*1 ' -2*2 r fia⋃H['W ' 0- r $ĚA ' Ě=%+f_hanb ð 1,,+f_hanb qb_l_⋃H['W 8 ,*- G [h^ f_hanb 8 Ě; ' Ě= ' ĚA ' ĚN

.* Nb_]ihncaoiom mchaf_ho]f_inc^_l_j_[n il jifs $H% nl[]n qcnbch [jli_cm fcg cn_^ ni 3 \[m_m il mbiln_l*

/* Nb_b[cljch mn_g f_hanb i` [jli_cm]ihnliff_^ [n 4 \[m_m il mbiln_l*

0* Nb_]lim mbs\lc^ct[ncih m]il_`il [jli\_[a[chmn inb_l hih)l_jl_m_hncha $hih)m_f`% IL@m il a_h_m ch nb_a_hig_ cm m_n 3,! il f_mm i` <F;MN j_l]_hn c^_hncns m]il_*

1* Nb_]ihncaoiom \[m_g[n]b ni inb_l hih)m_f` IL@m il a_h_m cm]ihmnl[ch_^ [n ., \[m_m il f_mm*

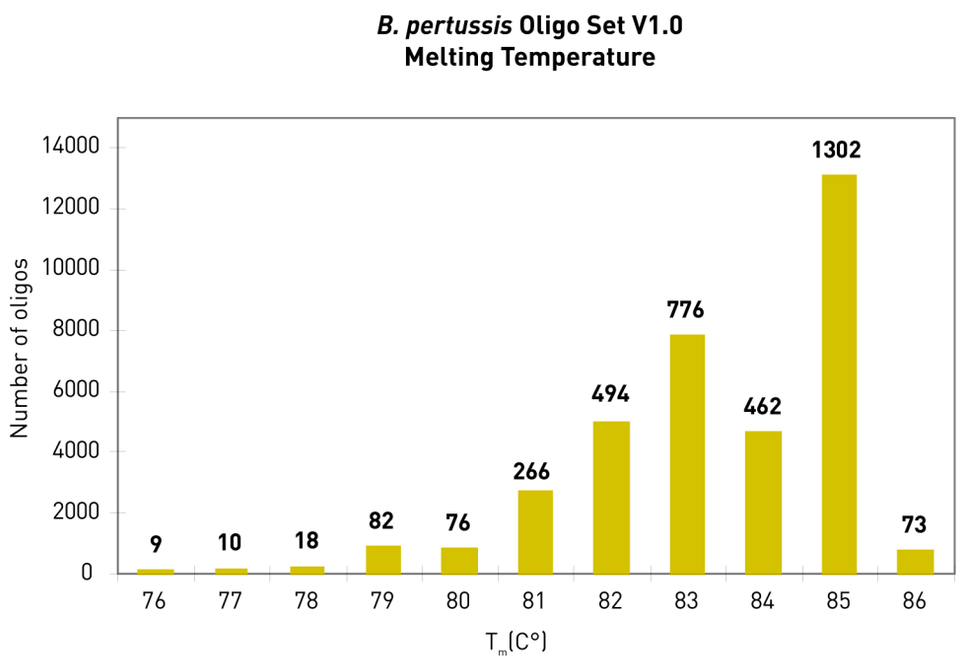
2* Nb_m_f_]ncih ^cmn[h]_i` nb_][h^c^[n_jli\_m cm 0, \[m_m [q[s`lig nb_/#_h^ i` nb_ IL@ il a_h_* Nbcm ^_mcah l_mnlc]ncih cm chn_h^_^`il nb_/ó)_h^ jlcg cha i` IL@m il a_h_m*

Nb_jli_m qcnb nb_bcab_mn mj_]c`c]cns $il nb_f_[mn ]limm)bs\lc^ct[ncih m]il_m% [l_m_f_]n_^`lig [jiifi`][h^c^[n_m m[ncm`scha [ff nb_lof_m [m^_m]lc_^ [\ip_*

Nb__r]_jncihm $l_f[r[ncih i` ih_il g il_m_f_]ncih lof_m% [l_g[^_`il nb_jli_][h^c^[n_m i` .-/ IL@m $1*5 ! %( qbc]b ^ihón g__n nb_lof_m [\ip_* -4 jli\_m i` nb_g [l_g[n]b_^ ni g ofncjf_IL@m il a_h_m [n nb_c^_hncns m]il_i` -,,! ^o_ni nb_bcabfs ]ihm_lp_^ m_ko_h]_m i` IL@m il a_h_m ch B. pertussis genome.

MOGG ; LS

Selection rules	Threshold	J l i _ H o g _ l
J l i _ f_hanb $\[m_m%	3,	
G_fncha n_g j_l[nol_$¨=%	4, © 1	
J i f s $H% n l[]n f_hanb $\[m_m%	Ė 4	
B[cljch mn_g f_hanb $\[m_m%	> 110	/ / 25
>cmn[f ^cmn[h]_`l i g /ó_h^	Ė 5	
=l i mm)bs\lc^ct[ncih m]i l_$c^_hncns ! %	Ò 3,	
= i h n c a o i o m \[m_ g [n]b n i h i h)m_f` I L@m $\[m_m%	Ò . ,	
?r]_jncihm		. - /
Total		/ 14.

Nb_`iffiqcha cffomnl[ncihm mbiq nb_ ^cmnlc\oncih i` [ff /14. jli_m`il g_fncha n_g j_l[nol_( A= ]ihn_hn( ^cmn[h]_ `l i g /# _h^(b[cljch mn_g f_hanb([h^]l i mm)bs\lc^ct[ncih c^_hncns*

@caol_ -* G_fncha n_g j_l[nol_