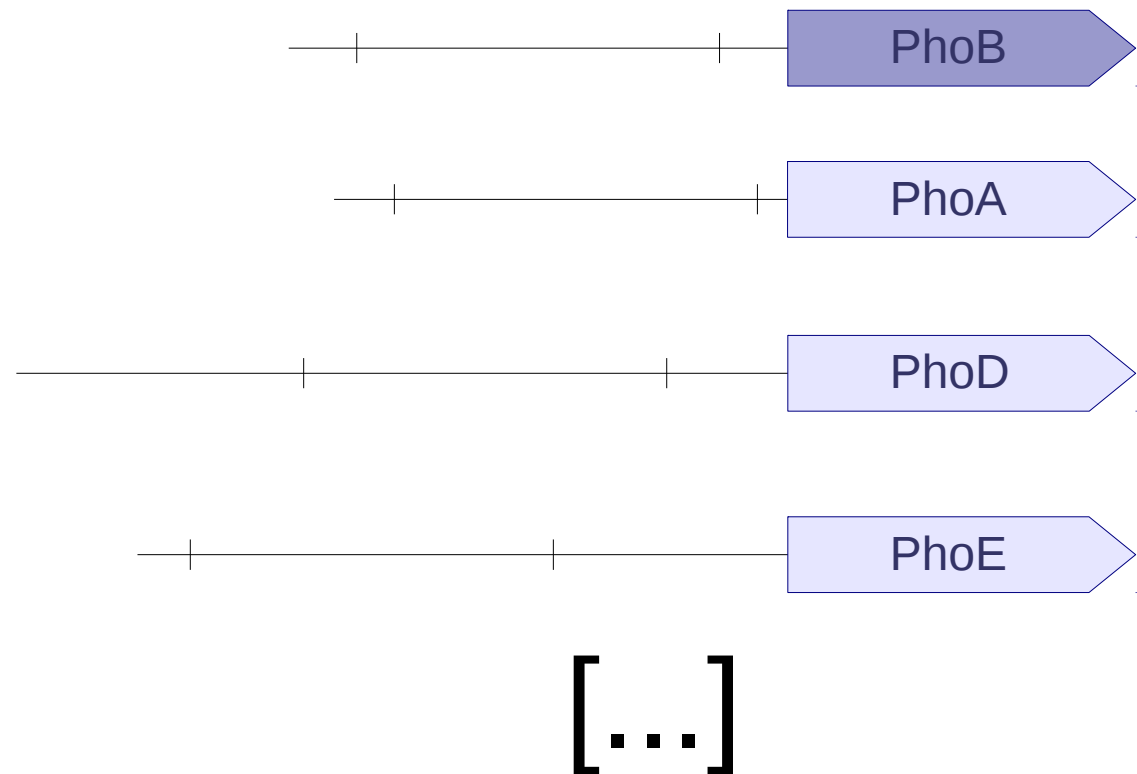


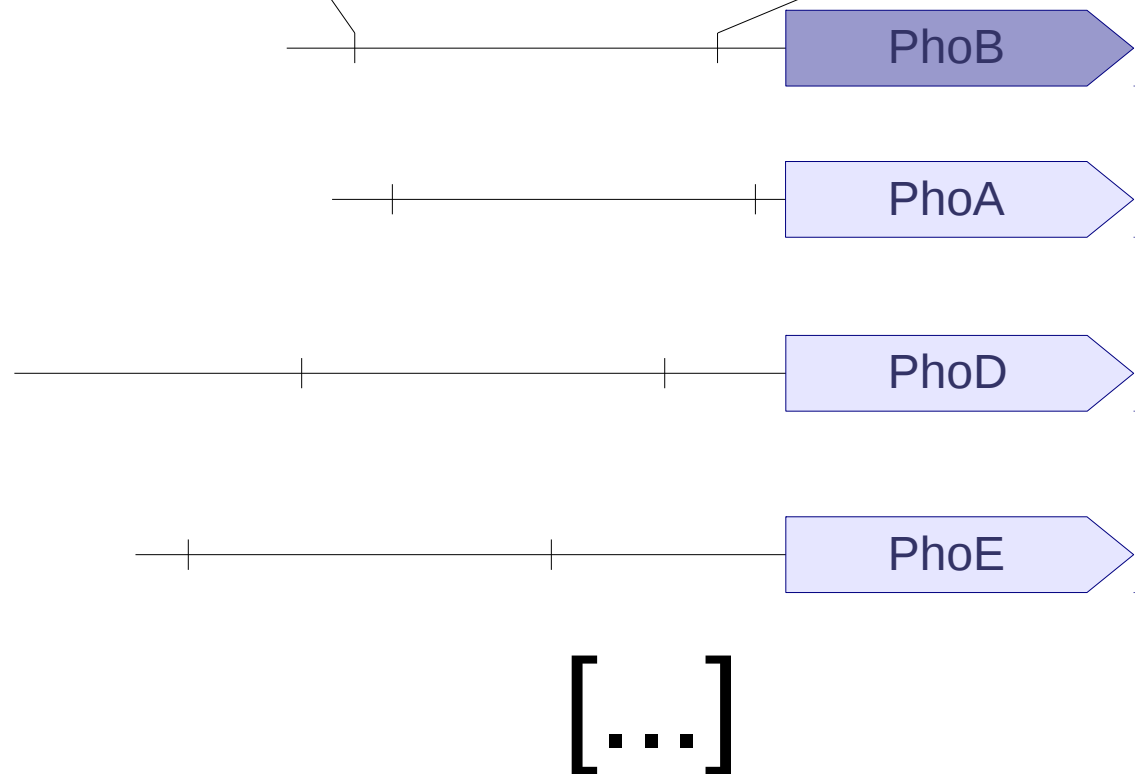
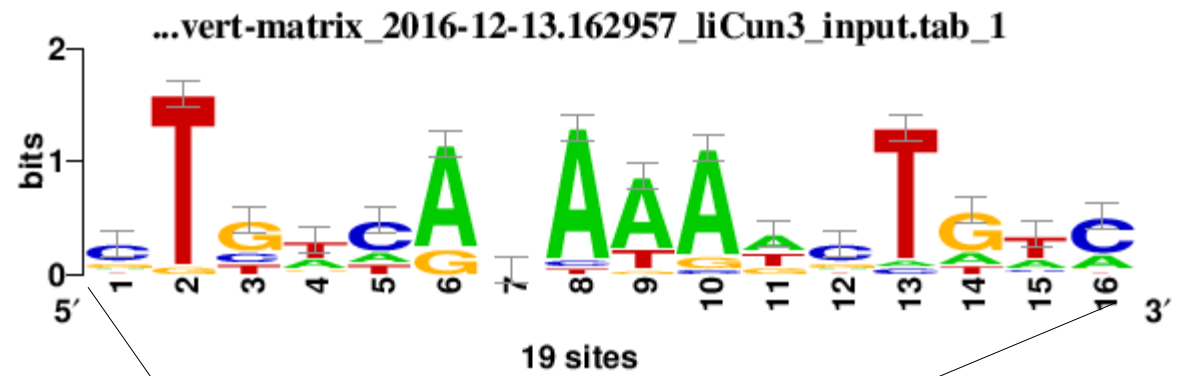
Régulon Pho

Pst-PhoR

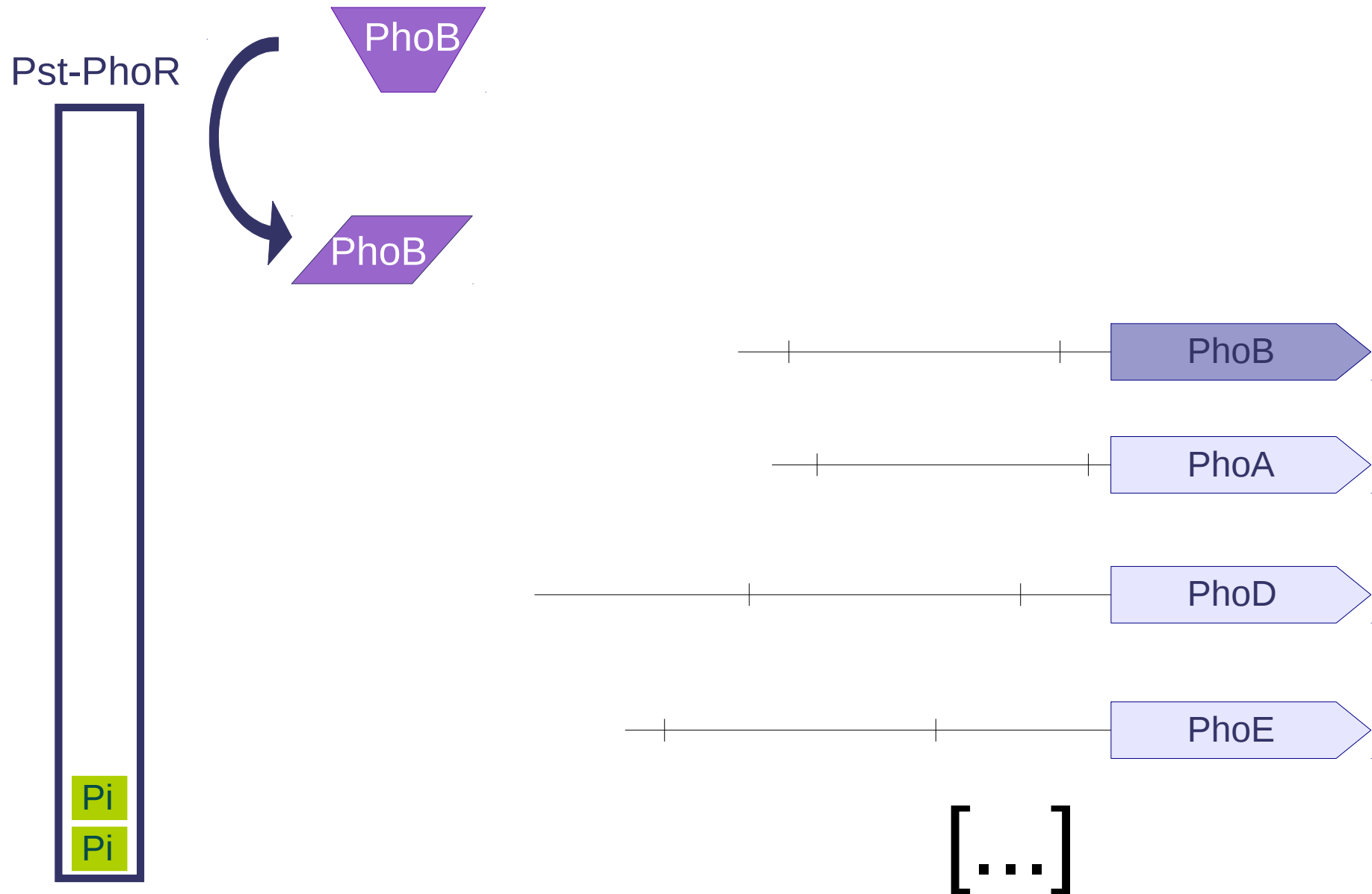


Régulon Pho

Pst-PhoR

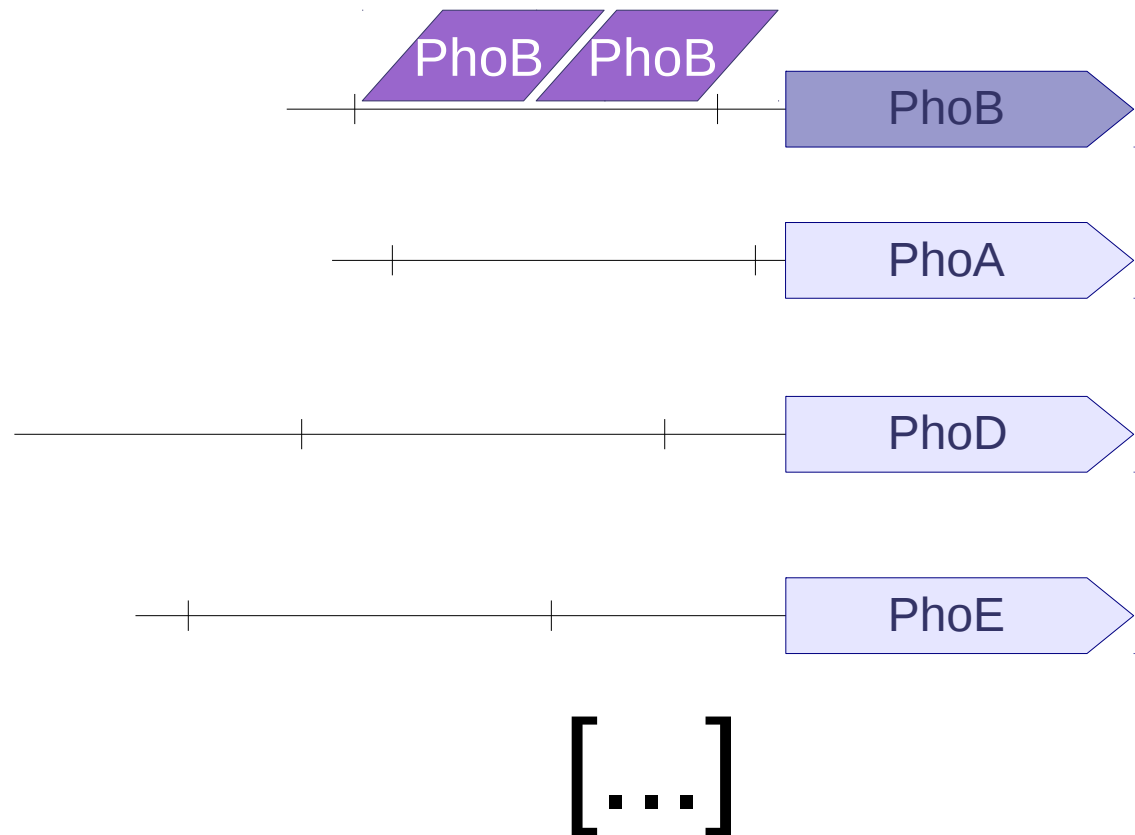
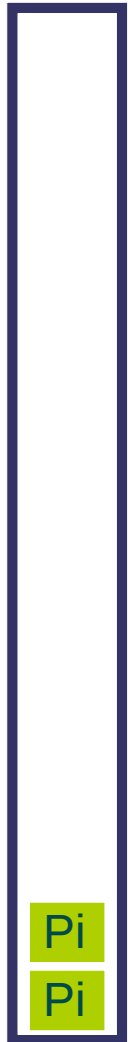


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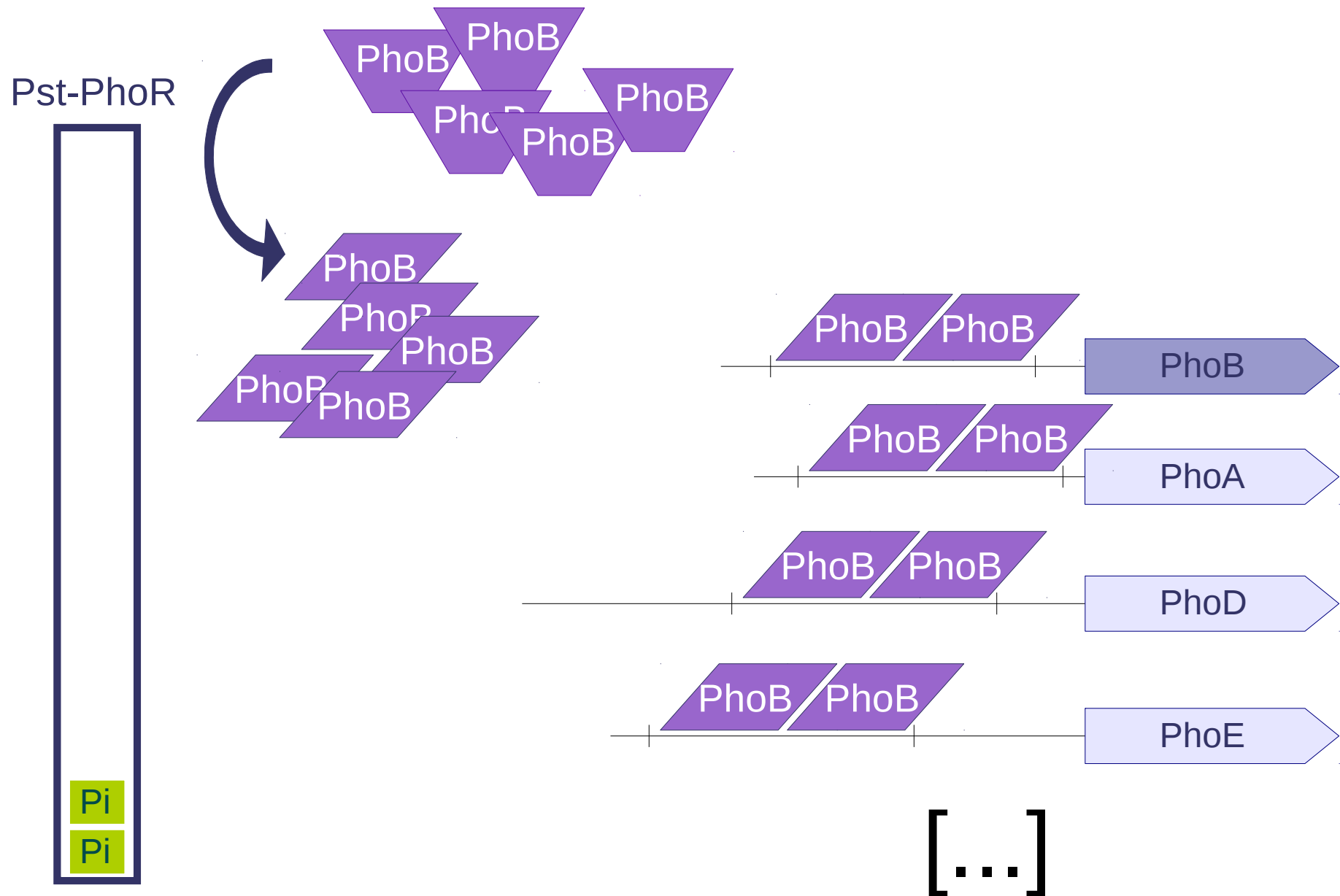


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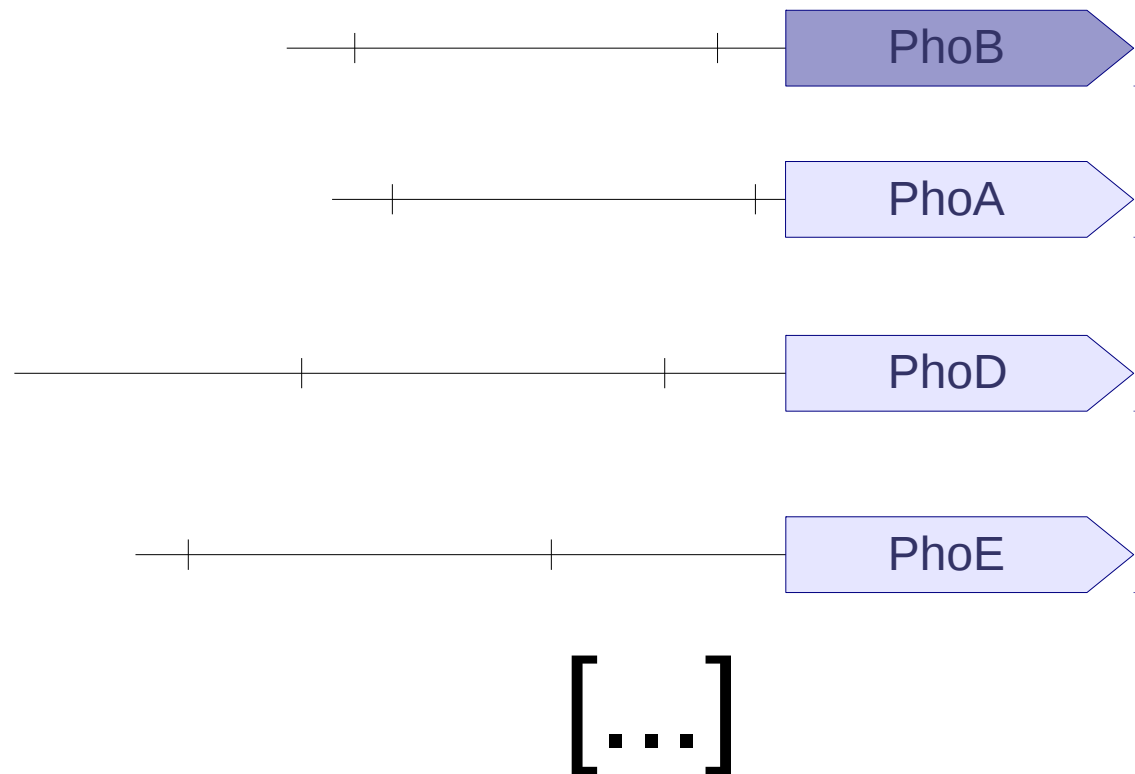
Pst-PhoR



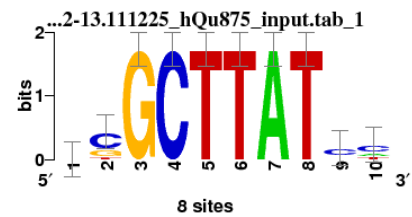
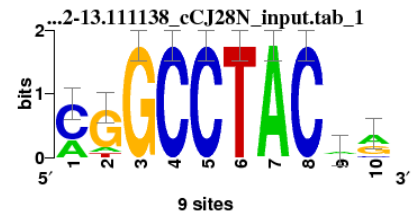
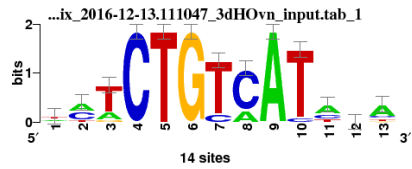
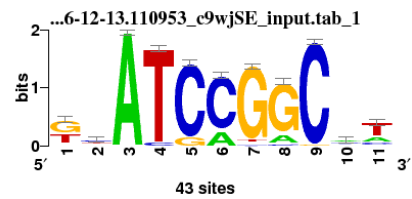
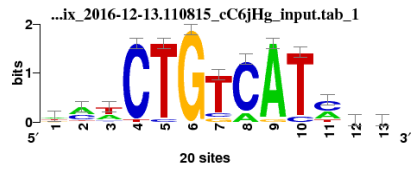
Régulon Pho



Régulon Pho

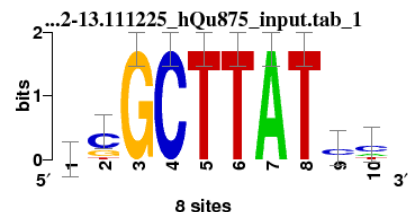
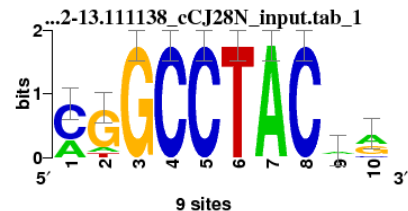
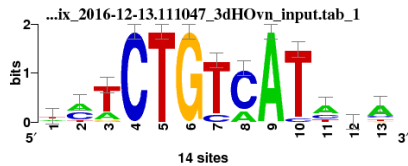
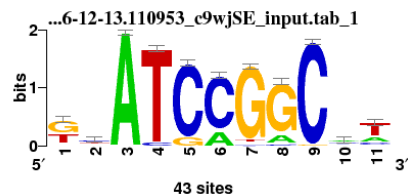
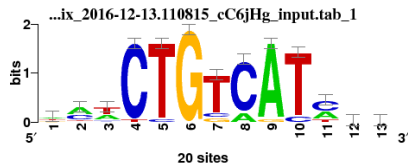


Base de données (86 FT)



Base de données (86 FT)

- Alignement Local Smith-Waterman
- Plusieurs métriques :



Pearson correlation
coefficient (PCC)

$$PCC(X, Y) = \frac{\sum_{b=A}^T (f_X(b) - \bar{f}_X) \cdot (f_Y(b) - \bar{f}_Y)}{\sqrt{\sum_{b=A}^T (f_X(b) - \bar{f}_X)^2 \cdot \sum_{b=A}^T (f_Y(b) - \bar{f}_Y)^2}}$$

Chi-square (pCS)
(1-p-value of)

$$\chi^2_3(X, Y) = \sum_{K=\{X,Y\}} \sum_{b=A}^T \frac{(n_K(b) - n_K^e(b))^2}{n_K^e(b)}$$

Average
Kullback-Leibler (AKL)

$$AKL(X, Y) = 10 - \frac{\sum_{b=A}^T f_X(b) \cdot \log \frac{f_X(b)}{f_Y(b)} + \sum_{b=A}^T f_Y(b) \cdot \log \frac{f_Y(b)}{f_X(b)}}{2}$$

Sum of squared
distances (SSD)

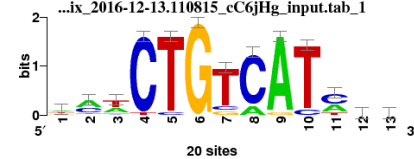
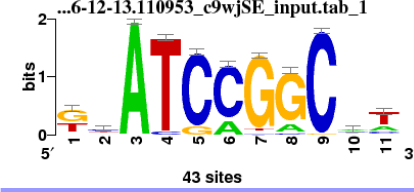
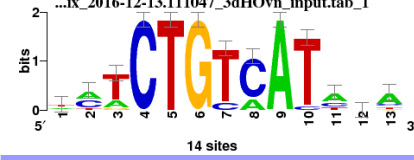
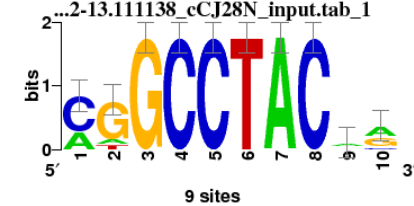
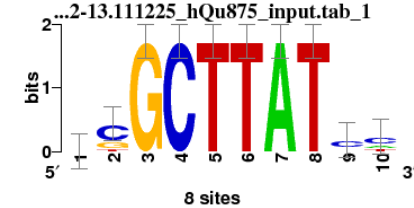
$$SSD(X, Y) = 2 - \sum_{b=A}^T (f_X(b) - f_Y(b))^2$$

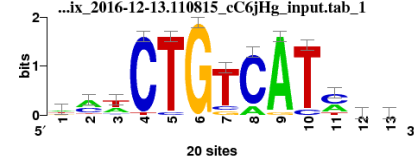
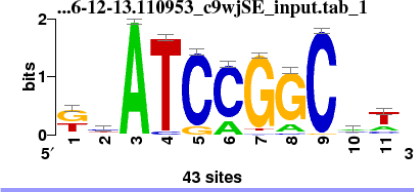
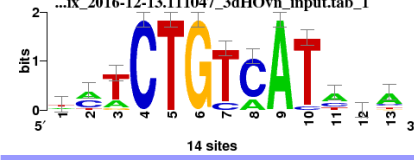
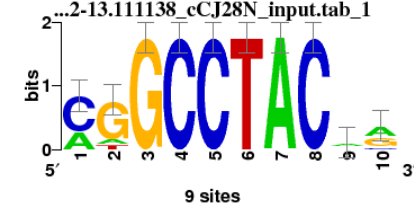
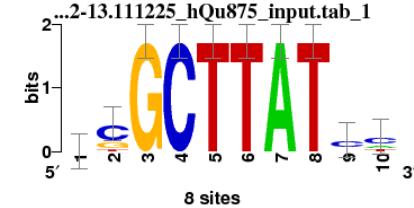
Average log-likelihood
ratio (ALLR)

$$ALLR(X, Y) = \frac{\sum_{b=A}^T n_X(b) \cdot \log \frac{f_Y(b)}{p_{ref}(b)} + \sum_{b=A}^T n_Y(b) \cdot \log \frac{f_X(b)}{p_{ref}(b)}}{\sum_{b=A}^T (n_X(b) + n_Y(b))}$$

ALLR with lower limit
(ALLR_LL)

Same as above, but a lower limit of -2 is
imposed on the score (see text)

	PCC	SSD	AKL
 <p>...ix_2016-12-13.110815_cC6jHg_input.tab_1</p> <p>bits</p> <p>20 sites</p>	PhoB SlyA NarP RscB TorR ...	CysB OmpR ArgP CRP ArcA ... PhoB : 57/86	OmpR XylR ArcA Fis PhoP ... PhoB : 42/86
 <p>...6-12-13.110953_c9wjSE_input.tab_1</p> <p>bits</p> <p>43 sites</p>	SlyA RelBReIE HipB MetR IclR ... PhoB : 38/86	FlhDC CysB AraC HipB Dan ... PhoB : 52/86	PhoP AscG Lrp RcsAB HNS ... PhoB : 27/86
 <p>...ix_2016-12-13.111047_3dHOvn_input.tab_1</p> <p>bits</p> <p>14 sites</p>	PhoB RcsB TorR HNS RelBReIE ...	PhoB CysB OmpR ArgP ArcA ...	OmpR CysB CRP ArcA XylR ... PhoB : 73/86
 <p>...2-13.111138_cCJ28N_input.tab_1</p> <p>bits</p> <p>9 sites</p>	IHF AsnC RstA NarP NanR ... PhoB : 62/86	NanR EvgA NarP ModE NtrC ... PhoB : 38/86	EvgA DeoR NtrC GadW SoxS ... PhoB : 53/86
 <p>...2-13.111225_hQu875_input.tab_1</p> <p>bits</p> <p>8 sites</p>	ExuR NanR RelBReIE DgsA HipB ... PhoB : 50/86	Nac ModE ArgP GntR DnaA ... PhoB : 57/86	GntR ModE Fur Nac Fis ... PhoB : 75/86

	PCC	SSD	AKL
 <p>...ix_2016-12-13.110815_cC6jHg_input.tab_1</p> <p>bits</p> <p>20 sites</p>	PhoB SlyA NarP RscB TorR ...	CysB OmpR ArgP CRP ArcA ...	OmpR XylR ArcA Fis PhoP ...
		PhoB : 57/86	PhoB : 42/86
 <p>...6-12-13.110953_c9wjSE_input.tab_1</p> <p>bits</p> <p>43 sites</p>	SlyA RelBReIE HipB MetR IclR ...	FlhDC CysB AraC HipB Dan ...	PhoP AscG Lrp RcsAB HNS ...
	PhoB : 38/86	PhoB : 52/86	PhoB : 27/86
 <p>...ix_2016-12-13.111047_3dHOvn_input.tab_1</p> <p>bits</p> <p>14 sites</p>	PhoB RcsB TorR HNS RelBReIE ...	PhoB CysB OmpR ArgP ArcA ...	OmpR CysB CRP ArcA XylR ...
			PhoB : 73/86
 <p>...2-13.111138_cCJ28N_input.tab_1</p> <p>bits</p> <p>9 sites</p>	IHF AsnC RstA NarP NanR ...	NanR EvgA NarP ModE NtrC ...	EvgA DeoR NtrC GadW SoxS ...
	PhoB : 62/86	PhoB : 38/86	PhoB : 53/86
 <p>...2-13.111225_hQu875_input.tab_1</p> <p>bits</p> <p>8 sites</p>	ExuR NanR RelBReIE DgsA HipB ...	Nac ModE ArgP GntR DnaA ...	GntR ModE Fur Nac Fis ...
	PhoB : 50/86	PhoB : 57/86	PhoB : 75/86