

Predictors of proteins directed to atypical plastids

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Secondary plastids

Software for prediction of proteins targeted to secondary plastids (mostly based on the ASAFAP motif):

- HECTAR (2008) (<https://doi.org/10.1186/1471-2105-9-393>) - only heterokonts,
- ASAFind (2015) (<https://doi.org/10.1111/tpj.12734>) - all types of secondary plastids.

Apicoplast

Software for prediction of only apicoplast-targeted and related proteins:

- ApicoAMP (2013) (<https://doi.org/10.1016/j.mimet.2013.09.017>) - apicoplast-targeted transmembrane proteins.
- ApicoAP (2012) (<https://doi.org/10.1371/journal.pone.0036598>) - apicoplast-targeted proteins.
- PlasmoAP (2003) (<https://doi.org/10.1126/science.1078599>) - apicoplast-targeted proteins.
- PATS (2001) ([https://doi.org/10.1016/S0378-1119\(01\)00776-4](https://doi.org/10.1016/S0378-1119(01)00776-4)) - apicoplast-targeted proteins.

Chromatophores

Paulinella chromatophora obtained 90–140 Ma ago photosynthetic organelles named chromatophores - very early stage of host-organellum integration.

- unnamed algorithm (2017) (<https://doi.org/10.1016/j.cub.2017.08.010>) - HMM/SVM-based prediction.

Data sources

- *Thalassiosira pseudonana* (<https://doi.org/10.1371/journal.pone.0074483>)