# BBF RFC 96: The AutoAnnotator - Standardized annotation of protein-encoding BioBricks

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## 1. Purpose

For protein-encoding BioBricks a large number of useful parameters, such as the amino acid sequence or the molecular weight, can easily be computed. Furthermore alignments against databases and predictions of various features, for instance transmembrane regions, are very interesting and informative when viewing a part. However, this information is not presented or very hard to find in most part descriptions and requires the user to use external websites to obtain it. To resolve this issue we propose a standardized table containing this information. For this purpose we developed a web tool, called the AutoAnnotator, in JavaScript gathering this information and providing the standardized table for the user to copy.

#### 2. Relation to other BBF RFCs

This RFC extends BBF RFC 89: The minimum information for a qualified BioBrick.

## 3. Copyright Notice

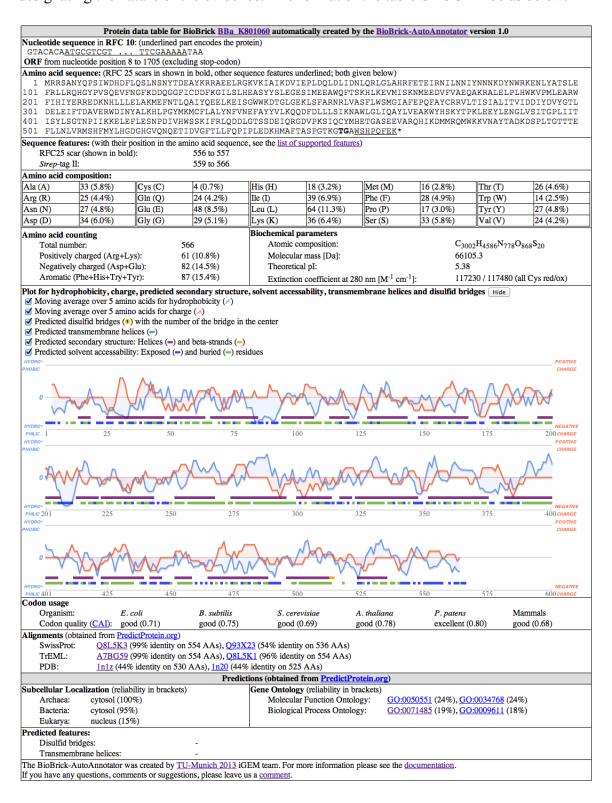
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#### 4. Use of the AutoAnnotator

The AutoAnnotator can be found at: <a href="http://2013.igem.org/Team:TU-Munich/Results/AutoAnnotator">http://2013.igem.org/Team:TU-Munich/Results/AutoAnnotator</a>

When adding a new protein-encoding BioBrick to the Registry, the user MUST apply the AutoAnnotator to the part and add the resulting table to the description of his/her part. The user MUST check, whether the computations were successful and whether the results (in particular the automatically determined Open Reading Frame) are as expected. For proteins not present in the data base used for the predictions, the table will initially be displayed without these, until they have been calculated, which should take no more than two days. If this is the case, the user SHALL reapply the AutoAnnotator to his/her part after two days and add the updated table to his/her part description.

If the user has additional information on the categories in the table, e.g. has experimental evidence of a transmembrane region, he SHOULD add this to the table appropriately, designating the nature of the evidence. The format of the table SHOULD be as below.



When viewing a table created by the AutoAnnotator the user SHOULD check, that the used open reading frame is correct. Additionally, since there might be a newer version of the AutoAnnotator and the quality of the predictions will improve as more structures are analyzed, the user MAY want to re-run the AutoAnnotator.

#### 5. Authors' Contact Information

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### References

Mubing Zhou, Junqiu Zhang and Jiankui He "BBF RFC 89: The minimum information for a qualified BioBrick"

Full documentation of the AutoAnnotator at <a href="http://2013.igem.org/Team:TU-Munich/Results/Software">http://2013.igem.org/Team:TU-Munich/Results/Software</a>