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## Primer design using NIH's Primer-BLAST tool.

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Protocol status: Working We use this protocol and it's working

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#### Abstract

This protocol demonstrates the basic usage of the <u>Primer-BLAST</u> tool in order to design PCR primers from a given FASTA sequence.

The results should show the sequence of at least one pair of primers (forward and reverse) within the chosen parameters.



## Materials

Internet access.



#### Go to NIH's Primer-BLAST tool

- 1 Open your internet browser (Google Chrome recommended).
- 2 Go to <a href="https://www.ncbi.nlm.nih.gov/tools/primer-blast/">https://www.ncbi.nlm.nih.gov/tools/primer-blast/</a>

#### Enter FASTA sequence

3



Screenshot of the **PCR Template section** with the corresponding text box.

Copy and paste your FASTA sequence in the text box or upload a FASTA file using the "Choose File" button.

4 You can select a custom range (i.e. the positional value of the first and last nucleotide of your ROI) for the forward and reverse primers.

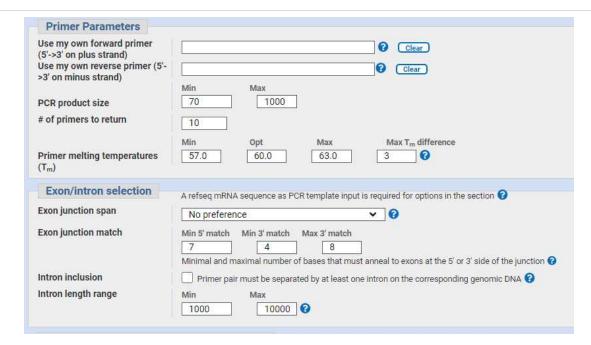


#### Enter primer parameters

5





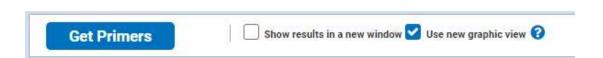


Screenshot of the **Primer Parameters** and **Exon/intron selection** sections.

Enter the optimal parameters for your primers. Depending on your application, the PCR product size and the primer Melting temperatures are extremely important values!

## Analyze

6



Screenshot of the Get Primers button.

Click on the "Get Primers" button.