

Primer3

The *Primer3* plugin is a port of the [Primer3 tool](#). It is intended to pick primers from a DNA sequence.

To use the *Primer3*, open a DNA sequence and select the *Analyze Primer3* context menu item. The dialog will appear:

The image shows a screenshot of the 'Primer Designer' dialog box. The window has a title bar with a question mark icon and a close button. Below the title bar is a tabbed interface with tabs for 'Main', 'General Settings', 'Internal Oligo', 'Penalty Weights', 'RT-PCR', 'Sequence Quality', and 'Result Settings'. The 'Main' tab is selected. Inside the dialog, there are several input fields and controls: 'Excluded regions' and 'Targets' are text boxes. 'Product size ranges' is a multi-select box with options like '150-250', '100-300', etc. 'Mispriming/Repeat library' is a dropdown menu set to 'NONE'. There are several numeric input fields for 'Number to return' (set to 5), 'Max 3' stability' (set to 9.00), 'Max repeat mispriming' (set to 12.00), 'Pair max repeat mispriming' (set to 24.00), 'Max template mispriming' (set to 12.00), and 'Pair max template mispriming' (set to 24.00). A 'Start codon position' text box is also present. Below these are three checkboxes: 'Pick left primer' (checked), 'Pick hybridization probe (internal oligo)' (unchecked), and 'Pick right primer' (checked). Each checkbox has a corresponding text box below it for primer sequences. At the bottom, there is a 'Region' dropdown set to 'Whole sequence', a range input '1 - 199950', and a 'Help' button. On the right side of the bottom bar are four buttons: 'Save settings', 'Load settings', 'Reset form', and 'Pick primers'.

All available parameters are the same as in the original Primer3.

However there is one additional feature available which is not originally a part of [Primer3 tool](#). It allows user design primers for RT-PCR experiments by choosing which exons/introns to span with the primer product. This feature is described in detailed below. When you select the parameters you can save and load settings with a help of the corresponding buttons in the right corner of the dialog.

- [RT-PCR Primer Design](#)