

# 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 software window titled "Primer Designer" with a standard Windows-style title bar (minimize, maximize, close buttons). The window contains several tabs: "Main", "General Settings", "Internal Oligo", "Penalty Weights", "RT-PCR", "Sequence Quality", and "Result Settings". The "Main" tab is currently selected. Inside the "Main" tab, there are several input fields and controls: "Excluded regions" (a text box), "Targets" (a text box), "Product size ranges" (a list of ranges: 150-250, 100-300, 301-400, 401-500, 501-600, 601-700, 701-850, 851-1000), and "Mispriming/Repeat library" (a dropdown menu set to "NONE"). Below these are several numeric input fields with up/down arrows: "Number to return" (5), "Max 3' stability" (9.00), "Max repeat mispriming" (12.00), "Pair max repeat mispriming" (24.00), "Max template mispriming" (12.00), and "Pair max template mispriming" (24.00). There is also a "Start codon position" text box. Further down are three checkboxes: "Pick left primer" (checked), "Pick hybridization probe (internal oligo)" (unchecked), and "Pick right primer" (checked). Below each checkbox is a text box for the primer sequence. At the bottom of the window, there is a "Region" dropdown set to "Whole sequence", a range selector "1 - 199950", a "Help" button, and three buttons on the right: "Save settings", "Load settings", "Reset form", and a blue "Pick primers" button.

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.

- [RTPCR Primer Design](#)