

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 dialog box titled "Primer Designer". It has a tabbed interface with tabs for "Main", "General Settings", "Internal Oligo", "Penalty Weights", "RT-PCR", "Sequence Quality", and "Result Settings". The "Main" tab is active. The dialog contains several input fields and controls:

- Excluded regions:** A text input field.
- Targets:** A text input field.
- Product size ranges:** A list of ranges: 150-250, 100-300, 301-400, 401-500, 501-600, 601-700, 701-850, 851-1000.
- Mispriming/Repeat library:** A dropdown menu set to "NONE".
- Number to return:** A spinner box set to 5.
- Max 3' stability:** A spinner box set to 9.00.
- Max repeat mispriming:** A spinner box set to 12.00.
- Pair max repeat mispriming:** A spinner box set to 24.00.
- Max template mispriming:** A spinner box set to 12.00.
- Pair max template mispriming:** A spinner box set to 24.00.
- Start codon position:** A text input field.
- Primer selection options:**
 - Pick left primer or use left primer below
 - Pick hybridization probe (internal oligo) or use oligo below
 - Pick right primer or use right primer below (5' to 3' on opposite strand)
- Region:** A dropdown menu set to "Whole sequence" and a range input field showing "1 - 199950".
- Buttons:** "Help", "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