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Local Run Manager
Praxis Extended RAS Panel Analysis Module

Workflow Guide

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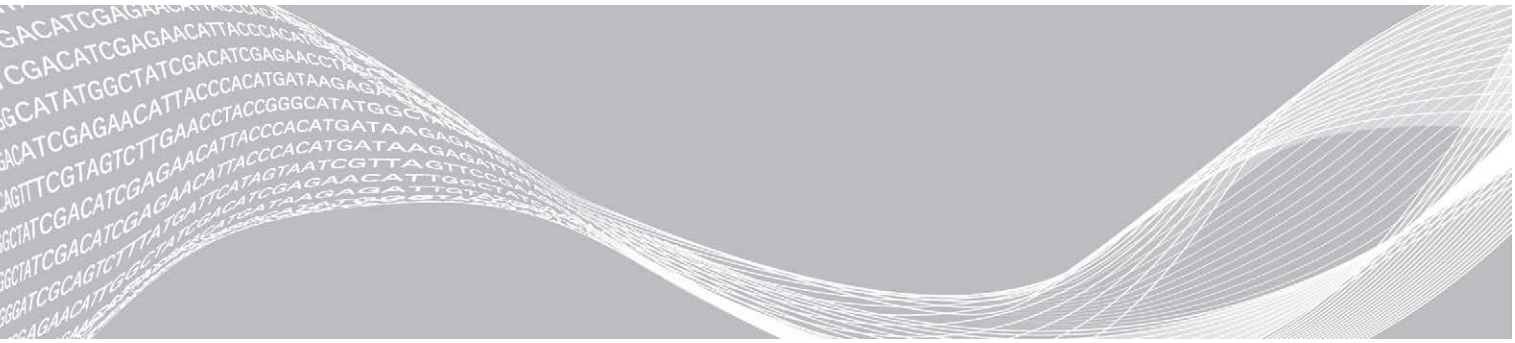

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Overview

The Local Run Manager Praxis™ Extended RAS Panel analysis module is for use with Praxis Extended RAS Panel. The analysis module performs secondary analysis and report generation from sequencing runs that use the Praxis Extended RAS Panel. See the package insert *Praxis Extended RAS Panel (document # 1000000037190)*.

About This Guide

This guide provides instructions for setting up run parameters for sequencing and analysis for the Praxis Extended RAS Panel analysis module. For information about the Local Run Manager dashboard and system settings, see the *Local Run Manager Software Reference Guide (document # 1000000011880)*.

Set Parameters

1 Log in to Local Run Manager.

2 Click **Create Run**, and select **Extended RAS**.

3 Make sure that "Create Run Praxis Extended RAS" is visible in the top left corner of the screen.

4 Enter a run name that identifies the run from sequencing through analysis.
Use alphanumeric characters, spaces, underscores, or dashes.

5 [Optional] Enter a run description to help identify the run.
Use alphanumeric characters.

Specify Samples for the Run

Specify samples for the run using the following options:

- **Enter samples manually**–Use the table on the Create Run screen.
- **Import samples**–Navigate to an external file in a comma-separated values (*.csv) format.

After you have populated the samples table, you can export the sample information to an external file, and import the file for another run.

Enter Samples Manually

1 Click the plate region A1 or E7 to enter sample information in the samples table.
Region A1 is equivalent to the upper left quadrant of wells in the Hyb plate layout, and includes samples for Oligo Pools A and B.
Region E7 is equivalent to the lower right quadrant of wells in the Hyb plate layout, and includes samples for Oligo Pools A and B.

2 In the Pool A table, enter a unique sample name in the Sample Name field for each well you use.
Use alphanumeric characters, dashes, or underscores.
The sample name automatically populates the corresponding well in the Pool B table.
Dual index adapters for each Index Read, specific to the well, display as you enter a sample name.

3 [Optional] Although the default layout is recommended, to change the position of control samples, use the Positive Control or Negative Control drop down menu.

4 Click the print  icon to display the plate layout.

5 Select **Print** to print the plate layout as a reference for preparing libraries.

6 Click **Close**.

7 Click **Save Run**.

Import Samples

1 Click the plate region A1 or E7.

2 Click the **Export** icon for an example template.

3 Enter a unique sample name in the template for up to 10 samples and save the file.
Use alphanumeric characters, dashes, or underscores.

[Data]	Sample Names as a 4 * 3 matrix	
Sample1	Sample5	Sample9
Sample2	Sample6	Sample10
Sample3	Sample7	Positive_Control
Sample4	Sample8	Negative_Control

4 Click **Import Samples**.

5 Browse to the location of the sample information file in *.csv file format.

6 When finished, click the print icon to display the plate layout.

7 Select **Print** to print the plate layout as a reference for preparing libraries.

8 Click **Close**.

9 Click **Save Run**.

View Analysis Results

1 From the Local Run Manager dashboard, click the run name.

2 Click the Samples and Results tab to view the analysis report.
- If analysis was repeated, expand the Select Analysis drop-down list and select the appropriate analysis.

3 [Optional] Click the **Copy to Clipboard** icon to copy the Analysis folder path.

Analysis Report

Praxis Extended RAS Panel Report

The Praxis Extended RAS Panel Report details if a run passed or failed, and whether each sample contains any of the 56 Extended RAS Panel mutations.

The Run State on the Samples and Results tab shows if the sequencing run passed quality metrics. If the Run State is Fail, all samples are listed as invalid.

Sample Results

Table 1 Sample Results Table

Column Heading	Description
Sample Name	The sample name provided when the run was created.
Sample	Sample validity results. **Valid**– Presence or absence of panel mutations is reported. **Invalid**– Presence or absence of panel mutations cannot be determined. See *Sample Invalid on page 5*.
Result	Sample results for panel mutation detection. See *Panel Mutation Detected on page 5* and *Panel Mutation Not Detected on page 5*.
Gene	The gene, *KRAS* or *NRAS*, where a mutation is detected, if applicable.
Exon	The exon number in which the mutation is present, if applicable.
Amino Acid	Human Genome Variation Society (HGVS) amino acid change notation.
Nucleotide	HGVS nucleotide change notation.

Sample Invalid

The sample result, Invalid, indicates that the presence or absence of a Praxis Extended RAS Panel mutation cannot be determined. Repeat library preparation, sequencing, and analysis for Invalid samples. If a sample fails 2 times, additional troubleshooting can be necessary. If all samples in a run are Invalid because of a Run State of Fail, contact Illumina Technical Support.

Panel Mutation Detected

The sample result, Panel Mutation Detected, indicates that a Praxis Extended RAS Panel mutation is detected. The report lists all detected mutations.

Panel Mutation Not Detected

The sample result, Panel Mutation Not Detected, indicates that no Praxis Extended RAS Panel mutations are detected.

Analysis Output Files

The following analysis output file is generated for the Praxis Extended RAS Panel analysis module. Analysis output files are located in the Alignment folder.

File Name	Description
ExtendedRasPanelReport.txt	The Praxis Extended RAS Panel report details if a run passed or failed, and whether each sample contains any of the 56 Extended RAS Panel mutations.

Alignment Folders

Each time that analysis is requeued, the Local Run Manager creates an Alignment folder in the run folder named **Alignment_N**, where N is a sequential number.

Technical Assistance

For technical assistance, contact Illumina Technical Support.

Website: www.illumina.com
Email: techsupport@illumina.com

Illumina Customer Support Telephone Numbers

Region	Toll Free	Regional
North America	+1.800.809.4566	
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Sweden	+46 850619671	+46 200883979
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Safety data sheets (SDSs)–Available on the Illumina website at support.illumina.com/sds.html.

Product documentation–Available for download in PDF from the Illumina website. Go to support.illumina.com, select a product, then select **Documentation & Literature**.

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