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Setting up sparQ Library Prep Kit in Illumina Experiment Manager

Illumina Experiment Manager (IEM) software is a useful tool for creating sample sheets for setup of Illumina[®] sequencing runs and data analysis.

IEM software can be downloaded for free on the Illumina homepage.

This protocol will guide you through how to add the sparQ UDI Adapters into the IEM for sample sheet setup.

- Determine which version of the IEM software you have downloaded. The files' folder names will correspond to the IEM software version they are compatible with. You can locate the version of IEM software on top of the first screen.
- 2. Download the appropriate .txt files from the corresponding folder from the Quantabio website (<u>https://www.quantabio.com/products/sparq-fraglibrary-prep</u> or <u>https://www.guantabio.com/products/sparq-library-prep</u>).</u>

Within program files find the Illumina folder, navigate to:

"Illumina\Illumina Experiment Manager\SamplePrepKits".

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	🔚 Illumina Experiment Manager	5/13/2019 5:27 PM	Application	778 KB		
	Illumina Experiment Manager.exe.config	5/13/2019 5:26 PM	CONFIG File	1 KB		
	Illumina Experiment Manager.pdb	5/13/2019 5:27 PM	PDB File	210 KB		
	SampleSheetCommon.dll	5/13/2019 5:27 PM	Application exten	139 KB		
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	SourceLibrary.dll	5/13/2019 5:27 PM	Application exten	119 KB		
	SourceLibrary.pdb	5/13/2019 5:27 PM	PDB File	250 KB		
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17 items						

- 3. Select the file "sparQ Library Prep Kit" and paste it into this folder.
- 4. Within program files find the Illumina folder, navigate to: "Illumina\Illumina Experiment Manager\IndexKits".
- 5. Select the file "sparQ Unique Dual Indices 96 Set A.txt" and paste it into this folder.

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- 6. Add the kit to the applications you would like it to be present in.
- 7. In program files, navigate to:

"Illumina VIllumina Experiment Manager Applications".

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	HiSeqGenerateFASTQ	5/13/2019 5:26 PM	Text Document	2 KB			
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	NextSeqGenerateFASTQ	5/13/2019 5:26 PM	Text Document	2 KB			
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	Plasmids	5/13/2019 5:26 PM	Text Document	1 KB			
	Resequencing	5/13/2019 5:26 PM	Text Document	2 KB			
	RNA-Seq	5/13/2019 5:26 PM	Text Document	1 KB			
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	Targeted RNA	5/13/2019 5:26 PM	Text Document	1 KB			
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- 8. Select the correct application that you would like these indexes to populate in.
- 9. Open the file and locate the [Compatible Sample Prep Kits] section.
 - a. Add the following text to this section: sparQ Library Prep Kit

GenerateFASTQ - Notepad			
File Edit Format View Help			
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TruSeq Synthetic Long-Read DNA			
TruSeq Bovine			
Nextera DNA			
Nextera DNA Elex			
Nextera Mate Pair			
Nextera Rapid Capture Custom Enrichment			
TruSeg DNA Exome Enrichment			
TruSeq Rapid Exome			
TruSight Enrichment			
Nextera XT			
TruSeq Custom Amplicon			
TruSeq Custom Amplicon Low Input			
TruSeq Amplicon Cancer Panel			
TruSight Tumor 26 genes			
TruSight Tumor 15 genes			
TruSight Myeloid			
TruSeq ChIP-Seq			
TruSeq DNA Methylation			
TruSeq Methyl Capture EPIC			
TruSeq KNA Access			
Trusey KNA VZ			
TouSed Stranded Total BNA			
TruSeq Tangeted RNA Expression			
TruSeq Small RNA			
TruSeq Ribo Profile			
ScriptSea Complete			
ScriptSea v2			
SureCell WTA 3'			
TruSeg RNA Exome Enrichment			
Nextera DNA Exome Enrichment			
AmpliSeq Library PLUS for Illumina			
Nextera Flex for Enrichment			
[Workflow-Specific Parameters]			
Label Type LabelInSampleSheet TrueVal FalseVal	DefaultVal	Required	DisplayAsCol
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- 10. Save and close this file
 - a. User account must have admin privileges to save files in this format.
 - b. If user account does not have admin privileges save the .txt file in a separate location. Copy, paste and replace the file into the Illumina subfolders.
- 11. Close any open instance of IEM software. Opening a new instance of IEM software is required for the changes to take place.
- 12. Navigate through the IEM software screens until reaching the Sample Sheet Wizard.
 - a. Find "sparQ Library prep kit" in the Library Prep Workflow pulldown menu.

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lumina Experiment Manager								
Sample Sheet Wiza	rd - Workflow Pa	arameters						
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b. Find "sparQ Unique Dual Indices 96 Set A" from Index Adapters pulldown menu.

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Illumina Experiment Manager		
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13. After selection each barcode index will auto generate for the selected index adapter.

🔚 Illumina Experiment Manager			- (
Illumina Experiment Manager				
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Sample ID Sample Name Index Well Index1 (7)	¢		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
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Select All Add Selected Samples =>	Sample Sheet Status: Invalid Reason: Not all Samples in this sample	le sheet have all the required field	Is	
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14. The sample sheet setup should be identical now to setting up any other library prep kit. Indexes will auto populate after selecting the well location of each index.

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Illumina Experiment Manager											
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15. The sample sheet can now be populated per sample. Auto conversion to the correct barcode for analysis will be done by the IEM software for the Nextseq, HiSeqX, HiSeq3000 and HiSeq4000 platforms. Adapter trimming will also be accurate during fastQ generation.

Trademarks: Illumina is a registered trademark of Illumina Inc.