

## Salmon.Quant Documentation

**Description:** Perform transcript-level quantification of RNA-seq data using Salmon.

See: The Salmon User Guide for detailed usage guidelines.

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**Contact:** Algorithm and scientific questions: <a href="https://github.com/COMBINE-lab/salmon/issues">https://github.com/COMBINE-lab/salmon/issues</a>.

Module specific issues: genepattern.org/help

**Summary**: Quantify gene expression at transcript level using the pseudo-alignment based method "Salmon".

**Source Publication:** Patro R, Duggal G, Love MI, Irizarry RA, Kingsford C. Salmon provides fast and bias-aware quantification of transcript expression. Nat Methods. 2017 Apr;14(4):417-419. doi: 10.1038/nmeth.4197. Epub 2017 Mar 6. PMID: 28263959; PMCID: PMC5600148.

## **Basic Parameters:**

Name	Description
Reads	Paired end RNA-seq reads with separate fastq.gz
	files for _R1 and _R2. Each pair should be named
	with the same sample ID and have the appropriate
	read suffix. Reads must be gzipped.
Transcriptome Index	The indexed transcriptome output from the
	Salmon.Indexer module (or comparable pipeline).
	File must be .tar.gz
Library Type	The relative orientation of the paired end reads. By
	default, salmon will attempt to autodetect the mate
	orientation.
Sampling	Method for assessing technical variance
	assessment. Necessary for downstream transcript
	differential expression testing with Sleuth
seqBias	Attempt to learn and correct random hexamer
	priming biases in the reads.
gcBias	Attempt to learn and correct GC sequence biases in
	the reads.
posBias	Model fragment position distribution to correct for 5'
	or 3' positional biases.

**Advanced Parameters:** See <u>The Salmon User Guide</u> for details on additional parameters offered in this module.

## **Output Files:**

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Name	Description
<sampleid_r1>.salmon_quant</sampleid_r1>	Gzipped files containing each salmon quantification
.tar.gz	result named for each input R1 file.

Module Language: Shell script

Source Repository: https://github.com/genepattern/Salmon.Quant/releases/tag/v1

Docker image: combinelab/salmon:1.5.1



Version	Comment
1	Initial release.