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Protocol status: Working
 We use this protocol and it's working

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SOAP-denovo-trans assembly

In 1 collection

Eric J. Carpenter¹, Shuangxiu Wu⁴, Naim Matasci^{2,3}, Chris Bowler⁵, Jun Yu⁴, Fabio Rocha Jimenez Vieira⁵, Richard G. Dorrell⁵, Matt Gitzendanner⁶, Ling Li⁷, Wensi Du⁷, Michael S. Barker⁹, James H. Leebens-Mack¹⁰, Kristian Ullrich⁸, Gane Ka-Shu Wong¹¹, Jing Sun⁴

¹Department of Biological Sciences, University of Alberta, Edmonton, Alberta, T6G 2E9, Canada.;

²CyVerse, University of Arizona, Arizona, U.S.A.;

³Current address: Lawrence J. Ellison Institute for Transformative Medicine, University of Southern California, Los Angeles, CA 90033, U.S.A.;

⁴CAS Key Laboratory of Genome Sciences and Information, Beijing, Institute of Genomics, Chinese Academy of Sciences, Beijing 100101, People's Republic of China.;

⁵École Normale Supérieure, Paris.;

⁶Department of Biology, University of Florida, Gainesville, Florida 32611, USA.;

⁷BGI-Shenzhen, Beishan Industrial Zone, Yantian District, Shenzhen 518083, People's Republic of China.;

⁸Department of Evolutionary Genetics, Max Planck Institute for Evolutionary Biology, Plön, Germany.;

⁹Department of Ecology & Evolutionary Biology, University of Arizona, Tucson, AZ 85721 USA.;

¹⁰Department of Plant Biology, University of Georgia, Athens, GA 30602, USA.;

¹¹Department of Biological Sciences, University of Alberta, Edmonton, Alberta, T6G 2E9, Canada. BGI-Shenzhen, Beishan Industrial Zone, Yantian District, Shenzhen 518083, People's Republic of China. Department of Medicine, University of Alberta, Edmonton, Alberta, T6G 2E1, Canada.

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ABSTRACT

SOAP-denovo-trans assembly protocol used to assemble plant transcriptomes for the 1KP project.

MATERIALS

STEP MATERIALS

	DNaseI	NEB
	Dynabeads mRNA purification kit	Life Technologies
	fragmentation buffer	Life Technologies
	SuperScript II reverse transcription kit	Life Technologies
	RNase H	Life Technologies
	DNA polymerase	Enzymatics
	QIAquick PCR purification kit	Qiagen
	Agencourt AMPure beads	Beckman Coulter
	T4 DNA polymerase and T4 polynucleotide kinase	Enzymatics
	Klenow (3' to 5' exo-)	Enzymatics
	dATP	GE Healthcare
	Phusion DNA polymerase	NEB

- 1 SOAPdenovo2 based DBG construction and Trinity based low frequency k-mer removal.
- 2 Map reads to the contigs and build linkages.
 - a) Utilizing single-end read information
 - b) Utilizing paired-end read information
 - c) Merge the linkages

- 3 Remove erroneous and redundant linkages
 - a) Manage ambiguous contigs
 - b) Linearize contigs into scaffolds
- 4 Divide graph into sub-graph. Oases based graph traversal.
- 5 Gap closure and output the transcripts.