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Agrigenomics Commercial and Consortia Infinium® Arrays

Commercial Products

Species	Array Name[a]	No. of Markers	Description	Link to Data Sheet	Min. Sample Req.[b]
Cow	BovineLD	7.9K	Accurate genotyping to understand the impact of genetics on milk production, reproduction, health, and more.	Data Sheet	48
Cow	Bovine SNP50v2	55K	High-throughput, cost-effective genetic screening in beef and dairy cattle, features evenly spaced SNP probes for genome-wide enabled selection, identification of quantitative trait loci (QTL), evaluation of genetic merit of individuals, and comparative genetic studies.	Data Sheet	48
Cow	BovineHD	777K	Most comprehensive genome-wide bovine genotyping array, providing superior power to interrogate genetic variation across any breed of beef and dairy cattle.	Data Sheet	48
Dog	CanineHD	170K	Enables the interrogation of genetic variation in any domestic dog breed for robust within-breed association and copy number variation studies.	Data Sheet	48
Corn	MaizeSNP50	50K	Highly polymorphic SNP content subjected to rigorous functional testing across over 30 diverse maize lines.	Data Sheet	48
Corn	MaizeLD	3K	SNP selection is based on a comparison of pairwise distance data for maize inbred lines generated using SNP markers from the Maize SNP50 array and SSR markers previously shown to discern EDV status.	Data Sheet	48
Pig	Porcine SNP60	65K	Superior solution for interrogating genetic variation in multiple porcine breeds for whole-genome association studies, determination of genetic merit, identification of quantitative trait loci, and comparative genetic studies.	Data Sheet	48
Sheep	Ovine SNP50	54K	SNPs representing genome-wide selection (estimated one marker per 46kb on average uniform coverage), identification of QTL, evaluation of genetic merit, cross-breed mapping, linkage disequilibrium studies, comparative genetic studies, and breed characterization for evaluating biodiversity.	Data Sheet	48

a. For more information, visit our Library Prep and Array Kit Selector at www.illumina.com/library-prep-array-kit-selector.html.
b. Number of samples that can be processed using the smallest kit configuration.

Consortia Products[c]

Species	Consortium Name	No. of Markers	Description	Min. Sample Req.[d]
Alfalfa	Alfalfa	10.5K	High-density alfalfa genotyping array solution for alfalfa genetics applications.	288
Apple	Fruitbreedomics Apple20k	20K	High-density apple genotyping array solution for fruit breeding applications.	96
Apple	RosBREED Apple	9K	The apple genotyping panel was developed by RosBREED, a multi-institutional, multi-national project dedicated to the improvement of the Rosaceae crops with genomics, developed for use on worldwide breeding germplasm.	48
Brassica	International Brassica SNP Consortium	52K	SNPs extracted and validated in 80 lines from *B.napus*, 4 lines from *B.oleracea*, and 4 lines from *B.rapa*, designed to work in any Brassica A or C genome species.	48
Cherry	RosBREED Cherry	6K	The cherry genotyping panel was developed by RosBREED, a multi-institutional, multi-national project dedicated to the improvement of the rosaceous crops using targeted genomics.	48
Cotton	International Cotton SNP Consortium	70K	The International Cotton SNP Consortium genotyping panel was developed with SNPs from Gossypium hirsutum, G.barbadense, G.tomentosum and G.mustelinum.	288
Goat	International Goat Genome Consortium	60K	Developed by the International Goat Genome Consortium with novel NGS scaffolds and latest genome sequence. Candidate goat SNPs were validated for Alpine, Angora, Boer, Creole, Jinlan, Katjang, Saanen, Savanna, and Skopelos breeds.	48

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Consortia Products[c]

Species	Consortium Name	No. of Markers	Description	Min. Sample Req.[d]
Grape	GrapeReSeq Consortium	20K	This SNP genotyping tool is useful for mapping and evaluating genetic diversity in the Vitaceae gene pool to support the development of genetic resources and breeding programs that will reduce the use of chemical treatments in viticulture.	96
Oat	Oat Consortium	6K	Private array developed by General Mills and Agriculture and AgriFood Canada, this Consortium is now open to additional interested researchers for oat genomic profiling.	48
Peach	RosBREED Peach	9K	The peach genotyping panel was developed by RosBREED, a multi-institutional, multi-national project dedicated to the improvement of the rosaceous crops using targeted genomics. Suitable for worldwide breeding geoplasms.	48
Pepper	UCD TraitGenetics Pepper (Capsicum) Consortium	19K	The pepper genotyping panel enables cost-effective genotyping of multiple pepper species. Array contains expertly selected content derived from high-quality sequencing data of 22 pepper lines including sweet blocky peppers and hot peppers.	192
Potato	SolCAP Potato 2013	10K	The potato genotyping panel was developed by the Solanaceae Coordinated Agricultural Project (SolCAP). SNP discovery was completed using Sanger-based SNPs from Kennebec, Bintje and Shepody ESTs, along with SNPs identified by Illumina transcriptome sequencing.	48
Sheep/ Ovine	AgResearch OvineLD Imputation Tool	6K	The AgResearch Ovine Imputation Low Density tool consists of approximately 5,000 SNPs intended for imputation to the OvineSNP50 beadchip.	96
Soybean	BARCSoySNP6k	6K	Developed by the Soybean Genomics and Improvement Lab, Beltsville Agricultural Research Center, for quantitative trait locus analysis and for screening the Soybean germplasm. Provides base content with even coverage of the genome.	192
Tomato	SolCAP Tomato 2013	9K	The SolCAP Tomato genotyping panel was designed by the Solanaceae Coordinated Agricultural Project (SolCAP) and is focused on translating the latest genomic advances to Solanaceae breeding programs. Content is from a large number of lines	48
Wheat	US/Australia 9k Wheat Consortium	9K	Low density wheat genotyping array that allows the addition of custom content.	48

c. Illumina consortia products are community-driven and are supported as custom products.
d. Number of samples that can be processed using the smallest kit configuration.

For more information visit our web page www.illumina.com

Agrigenomics Resources

GeneSeek Arrays

GGP Whole-Genome Genotyping Arrays

Arrays: Custom

iSelect (SNP's 3k-700k)

Instruments: Array

iScan, HiScan, Autoloader

Instruments: Sequencing

MiSeq, NextSeq 500, HiSeq 2500, HiSeq 3000 / HiSeq 4000

Library Preparation

Library Prep Kit Selector
TruSeq Synthetic Long-Read DNA Library Prep Kit
Ribo-Zero rRNA Removal Kit (Plant), ScriptSeq Complete Kit (Plant)
Ribo-Zero Gold rRNA Removal Kit (Human/Mouse/Rat)
TruSeq Stranded Total RNA with Ribo-Zero Globin
TruSeq Stranded Total RNA with Ribo-Zero Plant

Additional Ag-focused Resources

Agrigenomics publications
Agrigenomics blog articles
iCommunity articles
Agricultural Greater Good Initiative

Learn More

For more information on consortia arrays, visit www.illumina.com/applications/agriculture/consortia.html.

For availability of other consortia arrays, contact consortiamanager@illumina.com. New products are regularly developed.

For more information on any of these products or to place an order, contact your Genotyping specialist or a local sales representative:

- North America: 800.809.4566
- Europe, Middle East, Africa: +44.1799.534000
- Other regions: www.illumina.com/company/contact-us.html

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