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## Release Notes

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### Overview

SureDesign is a web application from Agilent that enables you to create your own custom target enrichment library designs, microarray designs, FISH probes and SureGuide designs based on the targets that you want to analyze. Using SureDesign's intuitive design wizards, you enter your target genes or genomic coordinates and define a few probe selection parameters, and SureDesign uses that information to select probes that will hybridize the desired target regions.

SureDesign stores all information about your custom designs, and allows you to share those designs with other users in your workgroup and additional collaborators, request price quotes, download design information, and place orders.

You can also use SureDesign to find information on designs offered in the Agilent catalog. SureDesign allows you to browse or search for catalog designs, request price quotes, and place orders.

### Agilent SureDesign 5.0.1

#### Key new features and scope of work

- Support for new catalog design - SureSelect Human All Exon V7 (hg19 and hg38)
- Support for hg38 in SureSelect DNA workspace, for creating new designs.
- Support for new published design - SureSelect Custom Constitutional Panel 17Mb
- Support for new SureGuide CRISPRa and CRISPRi catalog designs
- Support for new OneSeq catalog designs
- Additional SureSelect<sup>XT</sup> Low input Plate 2 part numbers for custom designs.
- Use of 8-pack formats (8x15K and 8x60K) discontinued for CH3 application.

#### Issues fixed since v5.0

- TT# 274951: CGH probe design job failure due to non-numeric chromosomal targets
- TT# 275177: No check applied by SureDesign while uploading probes in 4-column format
- TT# 276561: For simulated BAM files download link should work
- TT# 244656: Probegroups should not be deleted automatically from the users account without the consent of the user
- TT# 279863: Boosting does not work for SureSelect
- TT# 279763: SureSelect price tiers are incorrect

## **Agilent SureDesign 5.0**

### **Key new features and scope of work**

- Enhancements to the SureGuide gRNA design workspace in SureDesign.
  - gRNA design support for all genomes in SureDesign plus genomes uploaded by customers.
  - Doench and Zhang scoring for gRNA probes with user-settable thresholds.
  - Combined scoring functions via user-settable weighting.
  - Intuitive, interactive user interface for viewing and editing gRNA search results.
- Additional SureSelect<sup>XT</sup> Low input part numbers for custom designs.
- SureSelect<sup>XT</sup> RNA Direct kit support for two catalog designs:
  - SureSelect Human All Exon V6+UTR r2
  - ClearSeq Comprehensive Cancer
- Discontinuation of HaloPlex and HaloPlex<sup>HS</sup> for Ion Torrent Platform

## **Agilent SureDesign 4.5.1**

### **Key new features and scope of work**

- New dye color options and additional part numbers for CustomFISH designs.
- SSEL XT HS bundle part numbers.
- New FISH catalog designs made available in SureDesign.

### **Issues fixed since v4.5**

- TT# 273312: The coverage for HaloPlex designs is not reported correctly if the targets entered contain overlapping regions.
- TT# 273660: If workgroup name contains Unicode characters, users in the workgroup are unable to create designs in SureDesign
- TT# 274240: The replicate count for SureSelect catalog probes is not reported correctly in the probes.txt file when a catalog design is chosen as reference in subset flows.

## **Agilent SureDesign 4.5**

### **Key new features and scope of work**

- Ability to support multiple genome build versions per species.

### **Issues fixed since v4.0**

- TT# 238836: In the SureSelect DNA (Advanced wizard) flow for probegroup creation, an error message is not shown while creating a probegroup for species that are not supported.

## **Agilent SureDesign 4.0**

### **Key new features and scope of work**

- Support for creating Custom Exon-Focused arrays in CGH advanced design and probegroup creation workflows.
- Removal of obsolete SureSelect catalog libraries Human All Exon V1 (S0274956) and Human All Exon V2 (S0293689).
- New catalog SureSelect design – *SureSelect Clinical Research Exome V2*

## Agilent SureDesign 3.5.5

### Key new features

Database upgrade from Oracle 11g to Oracle 12c.

## Agilent SureDesign 3.5.3

### Key new features

- New custom designs for all applications (except CGH and ChIP) will now have design IDs incrementally assigned starting at 300000.
- New custom CGH and ChIP arrays will continue to be assigned 5-digit design IDs.

## Agilent SureDesign 3.5.2

### Scope of work

***Updated the Covered.BED files for the following SureSelect Human All Exon V6 catalog libraries:***

- S07604514      SureSelect Human All Exon V6
- S07604715      SureSelect Human All Exon V6+COSMIC
- S07604624      SureSelect Human All Exon V6+UTR

The update corrected the following issues: 1) Some target regions that are covered by probes in the libraries were not represented in the covered.BED files. 2) Some target regions, that are not actually covered by probes in the libraries, were incorrectly listed in the covered.BED files. The actual SureSelect oligos in the reagent kit tubes for each library were always correct.

## Agilent SureDesign 3.5.1

### Key new features

- A number of part numbers were updated or obsoleted. Here is the list of part numbers that were made obsolete:

Product Description	Part Number
SureSelect TE Reagent Kit, RCH	G9607A, G9607B, G9607C
SureSelect <sup>XT</sup> Reagent Kit, 5500	G9615A, G9615B
SureSelect <sup>XT</sup> Reagent Kit, S4	G9614A, G9614B, G9614C

- Obsoleted the SureSelect Human All Exon 50 Mb Catalog library (Design ID: S02972011).

## **Agilent SureDesign 3.5**

### **Key new features**

- Support for creating CustomFISH designs for mouse genome (build mm9).
- Collaboration workspace enabled in the CustomFISH workspace.
- Support to add a genome-wide backbone while creating an Advanced CGH design.
- Automatically obtain additional annotation for Human custom CGH probes.
- New catalog SNP probes added and existing probes annotated to dbSNP 141.
- Support for new catalog CGH arrays - GenetiSure Postnatal Research and GenetiSure Cancer Research.
- Support for new catalog SureSelect design - SureSelect NCC Onco panel.
- Support for new catalog Haloplex<sup>HS</sup> design – AML panel for ILM and ION • Selecting probes from the SureSelect Focused Exome enabled in custom designs.
- eArray application launch icon added to the Launch Pad section.
- Sorting of the Collaboration view based on name and creation date.
- Application of the Avoid Restriction site filter to CGH HD search by default (TT# 256962)
- Updated performance scores for CGH and ChIP probes in the pseudo-autosomal region (TT# 257055)

### **Issues fixed since v3.0**

- TT# 256698: SureDesign Help pages do not work with Firefox 41.0.x.
- TT# 233543: During creation of custom designs, targets are not resolved if a gene symbol is provided and if only one database (Ensembl or CCDS) is selected.
- TT# 245288: Error on UI while ordering the individual designs associated with a break apart or a dual fusion design from the Find Designs screen.
- TT# 257191 - During creation of custom designs, for some genes that have multiple transcripts, the end-to-end coordinates are not merged correctly when the 'Entire Transcribed Region' option is selected.

### **Supported Browsers**

- Internet Explorer Version 11.0
- Firefox Version 47.0 or later
- Safari 5.0 or later
- Chrome Version 50.0 or later

## **Known Issues**

- TT# 238570: In the Japanese version of the software, in the HaloPlex Advanced design wizard, the description provided in the UI of the "Selection parameters" option is inaccurate.
- In the CustomFISH design creation flow, chromosome coordinates are listed in place of the entered target IDs at the Review Targets step.
- The confirmation pop-up shown when a CustomFISH oligo selection job is submitted uses the word 'probe' instead of 'oligo'.