IDEXX xChek*: Creating a User-Defined Assay for a Swine *Salmonella* ELISA Test with a 10% Cutoff

Creating a user-defined assay is an easy process of two tasks—editing an xChek file to allow you to create an assay, and then creating the assay within xChek.

To edit the xChek.ini file:

1. From the task bar, choose **Start> Run** and type "xchek.ini" into the text box. Click the **OK** button.
2. After the xChek.ini file opens, locate the line labeled "AllowNewAssays".
3. If the value for that line is "0", change it to "1". If the value is already "1", you do not need to do anything.
4. From the menu bar, choose **File> Save**, and then choose **File> Exit**.

To create the assay:

1. From the task bar, choose **Start> Programs> xChek> xChek** to open the xChek program.
2. From the menu bar, choose **Database> Assays> All** to open the Assay dialog box.
3. Click the **New** button and enter "Swine Salmonella Cutoff=10%" into the Name field, "Salm10%" into the Code field, "Unknown" into the Kit Lot field and "12/31/2002" into the Expiration field.

   NOTE: If your laboratory needs an alternative cutoff, you can enter that information instead.

4. Click **OK** to save the assay in the xChek database.
5. From the task bar, choose **Database> Assays** and select the **Salm10%** assay that you created.

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6. Click the **Basic** button and select or enter the following information for the respective fields:

> Case Type: Population
>
> Template: SIV Horiz (or SIV Vert if desired)
>
> Species: Swine
>
> Technology: ELISA
>
> Samp Filter: 650
>
> Ref Filter: 0
>
> Dilution: 1:20
>
> Wells: 1

7. Click **OK** to save these settings, and then click the **OK** button to save the assay to the database.

8. From the task bar, choose **Database> Assays** and select the **Salm10%** assay.

9. Click the **Calculations** button and select or enter the following information:

> "S" Part of Ratio: Sample1 – Negative
>
> "P" Part of Ratio: Positive – Negative
>
> First Calculation
>
>> Variable: S/P
>>
>> Positive Cutoff : 0,25
>>
>> Suspect Cutoff: 0,25
>>
>> Comparison: >

NOTE: If a cutoff of 20%OD is desired, type in Positive Cutoff: 0,5 and Suspect Cutoff: 0,5. For a cutoff of 40%OD, type in Positive Cutoff: 1 and Suspect Cutoff: 1. For a cutoff of 15%OD, type in Positive Cutoff: 0,38 and Suspect Cutoff: 0,38.

IDEXX
L A B O R A T O R I E S

Swine Salmonella Cutoff=10%

Formulas

"S" Part of Ratio:	Sample1 - Negative
"P" Part of Ratio:	Positive - Negative
"N" Part of Ratio:	None
Blocking Factor:	None

OK Cancel Reset

First Calculation

Variable:	S/P
Positive Cutoff:	0.25
Suspect Cutoff:	0.25
Comparison:	>

Second Calculation

Variable:	None
Positive Cutoff:	0
Suspect Cutoff:	0
Comparison:	None

10. Click **OK** to save these settings, and then click the **OK** button to save the assay to the database. You can now use the Salm10% assay to read plates.

NOTE: The validity is not checked when you use a user-defined assay. You must compare the control values to the package insert and determine if a test run is valid or not.

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