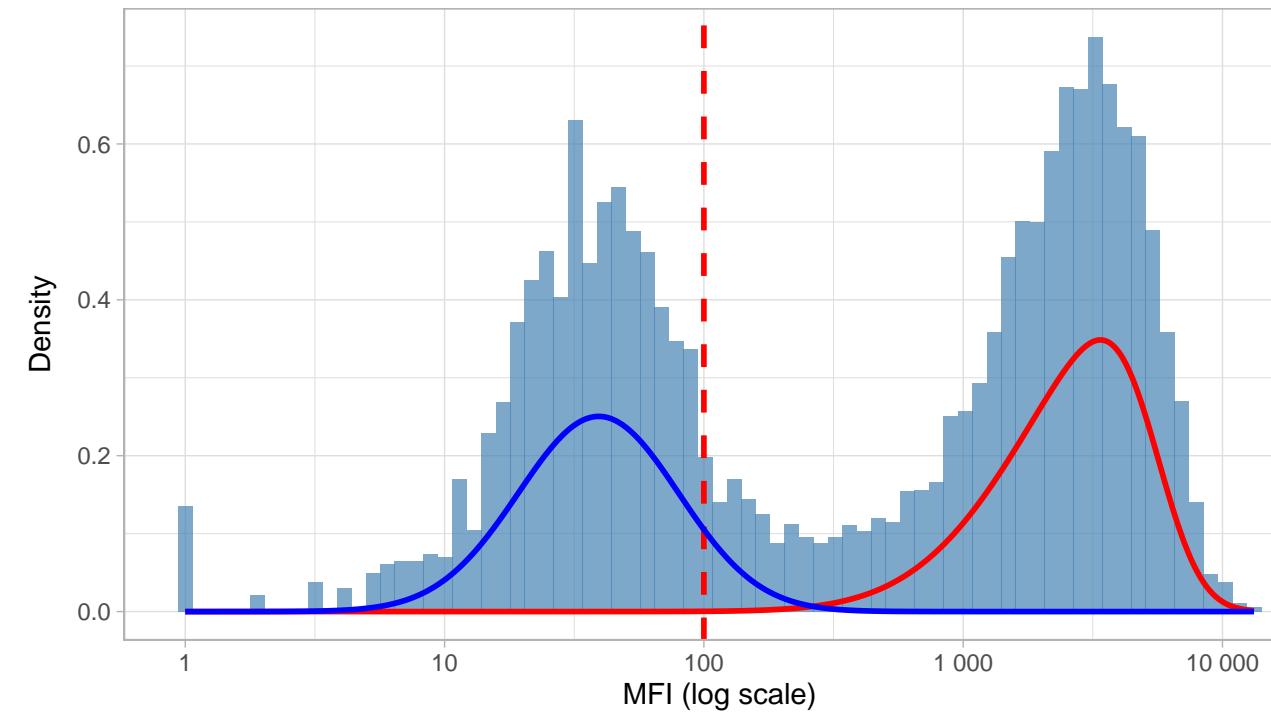


# Diagnostics: cmv\_pp150

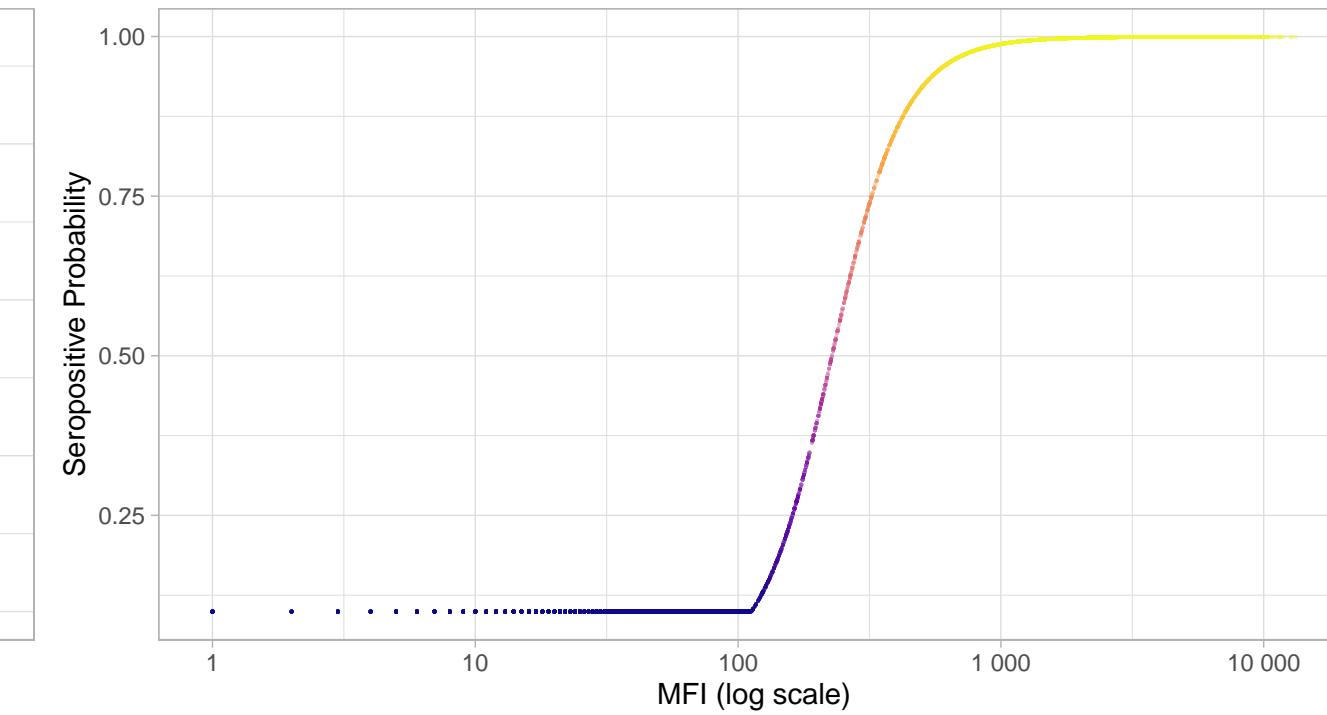
N=9424 | >0.95=4722 | <0.05=0 | Ambig=4702

Original MFI Distribution: cmv\_pp150

Hard cutoff threshold = 100

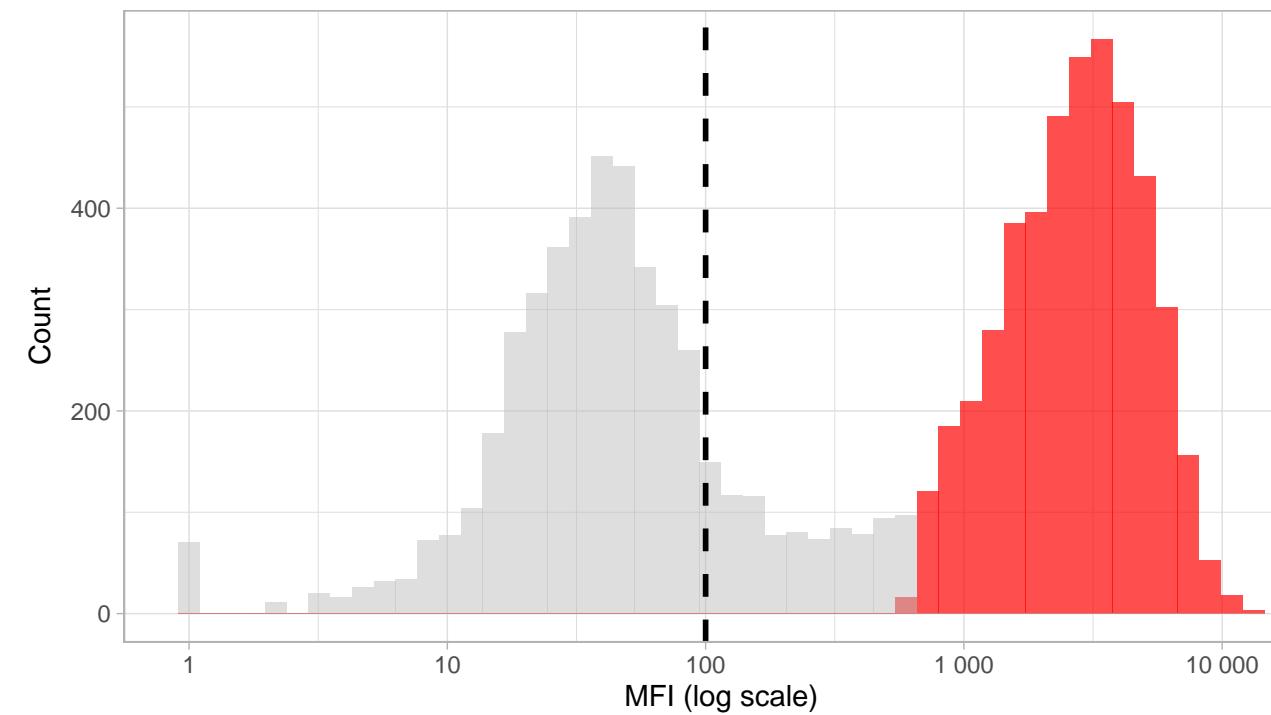


IgG vs Seropositive Probability: cmv\_pp150



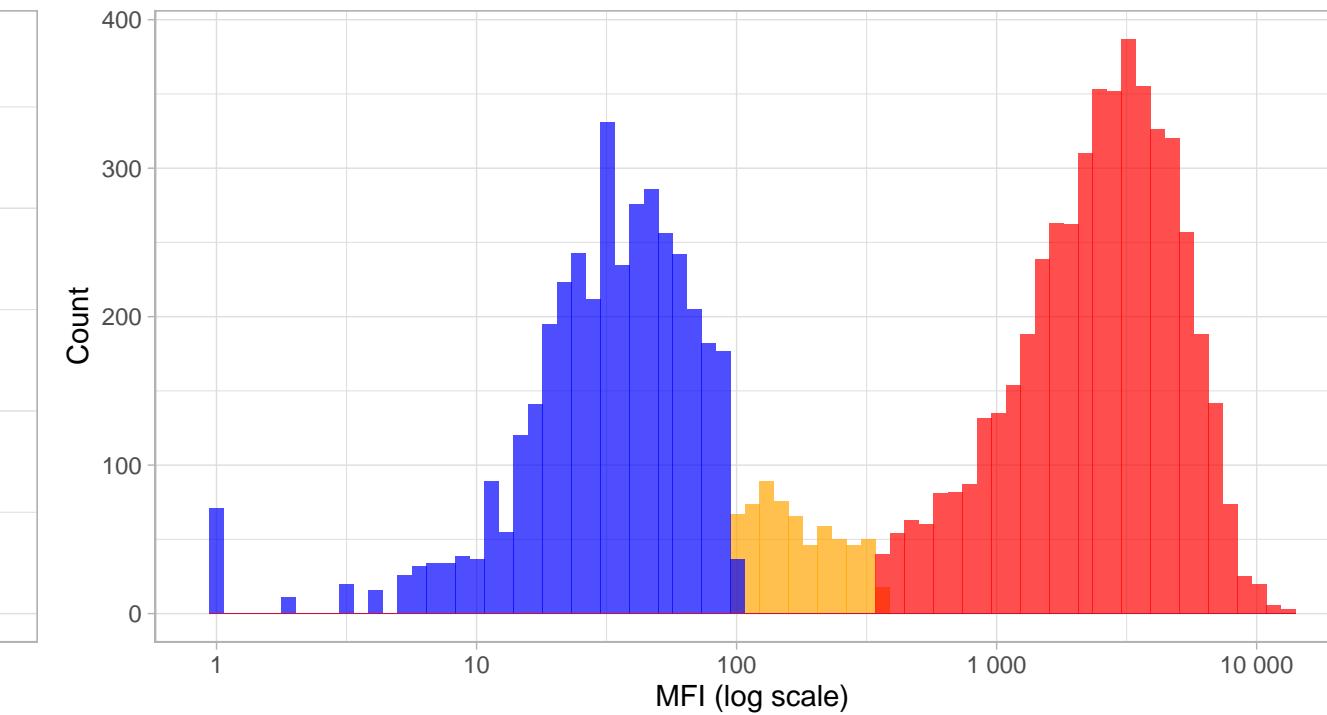
High-Confidence Seropositive Distribution: cmv\_pp150

Prob threshold = 0.96



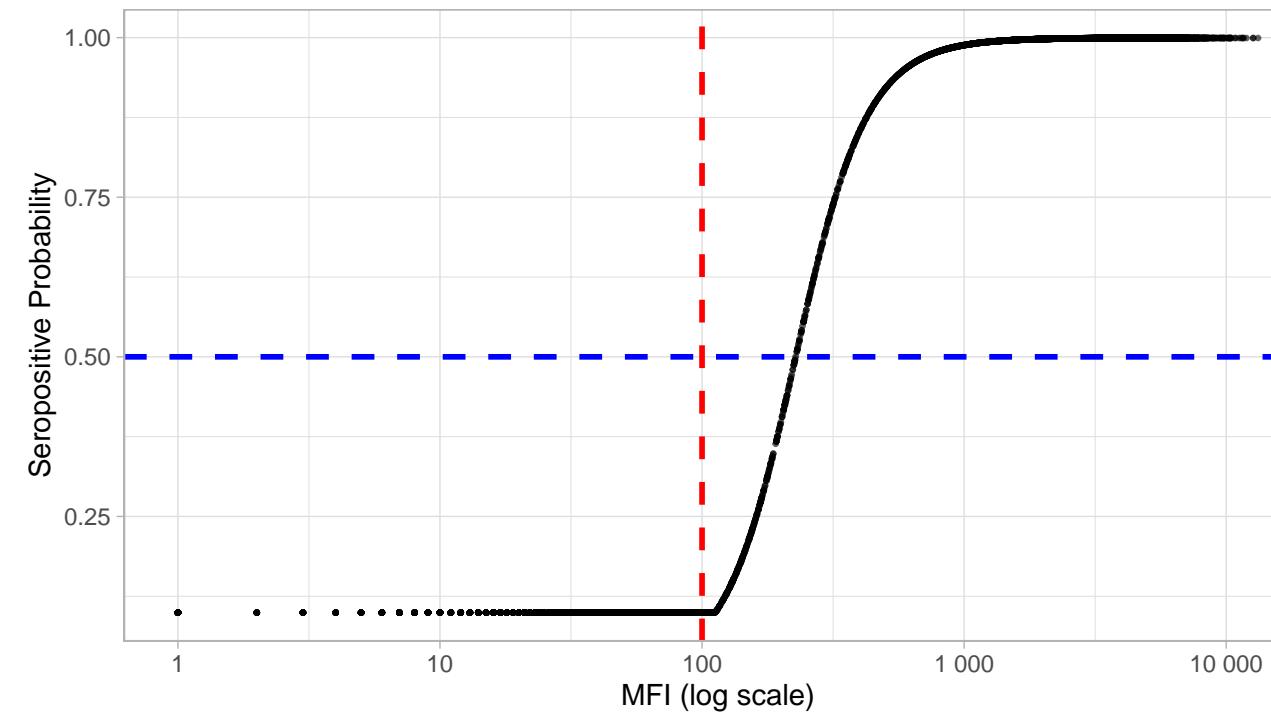
Phenotype Distribution by Classification: cmv\_pp150

Comparing hard vs soft classifications



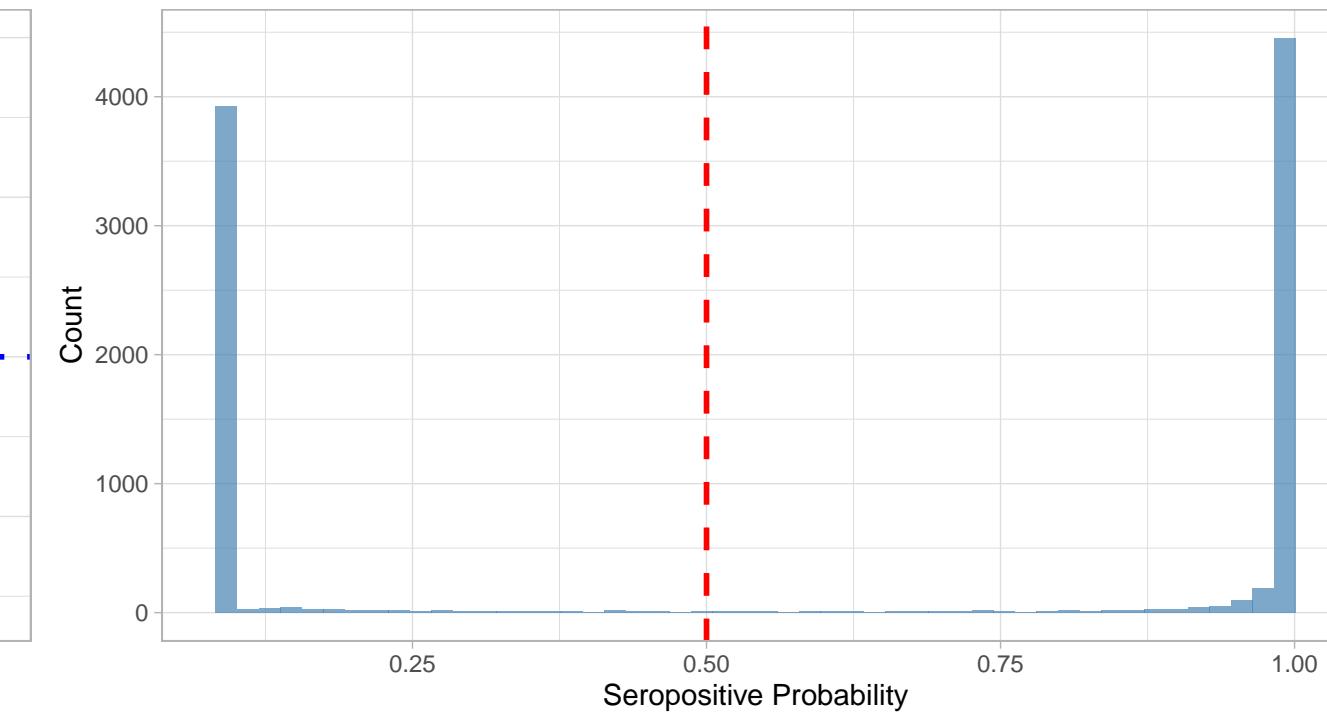
IgG Level vs Seropositive Probability: cmv\_pp150

Red line = hard threshold, Blue line = 50% probability



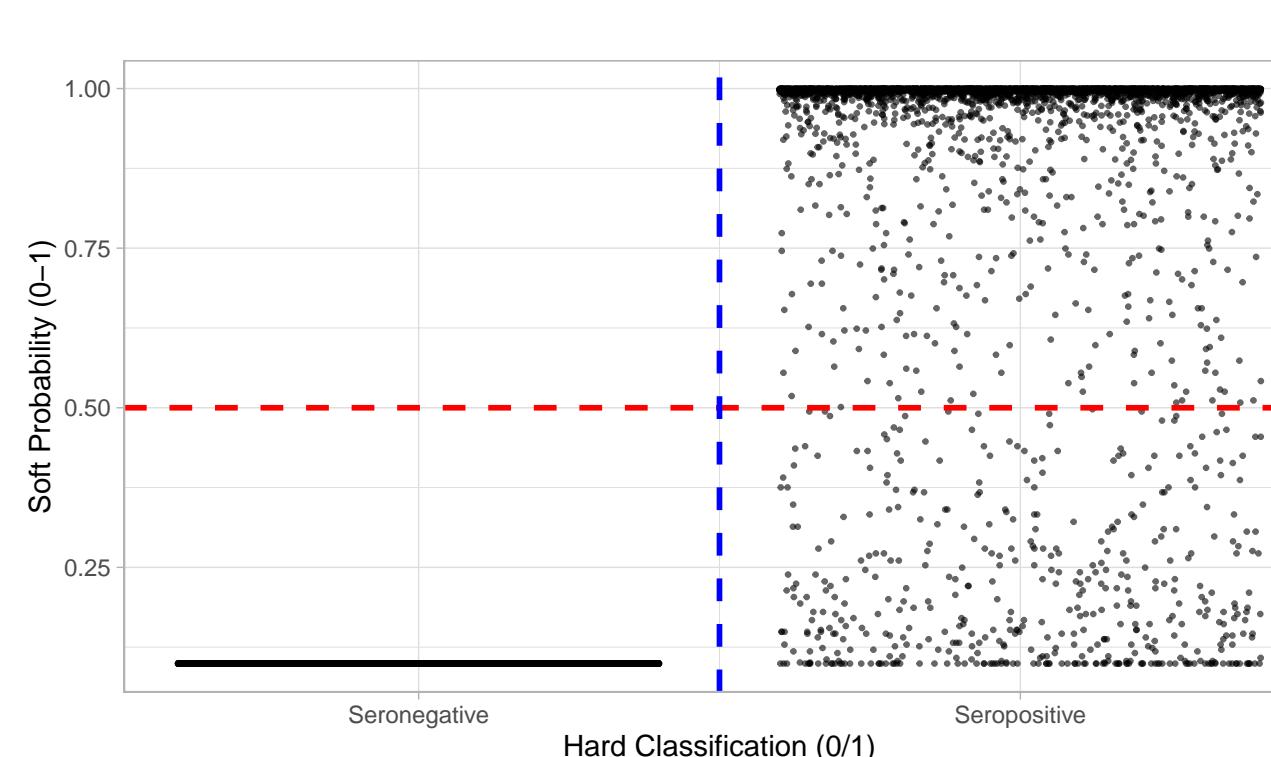
Distribution of Seropositive Probabilities: cmv\_pp150

Red line = 50% threshold



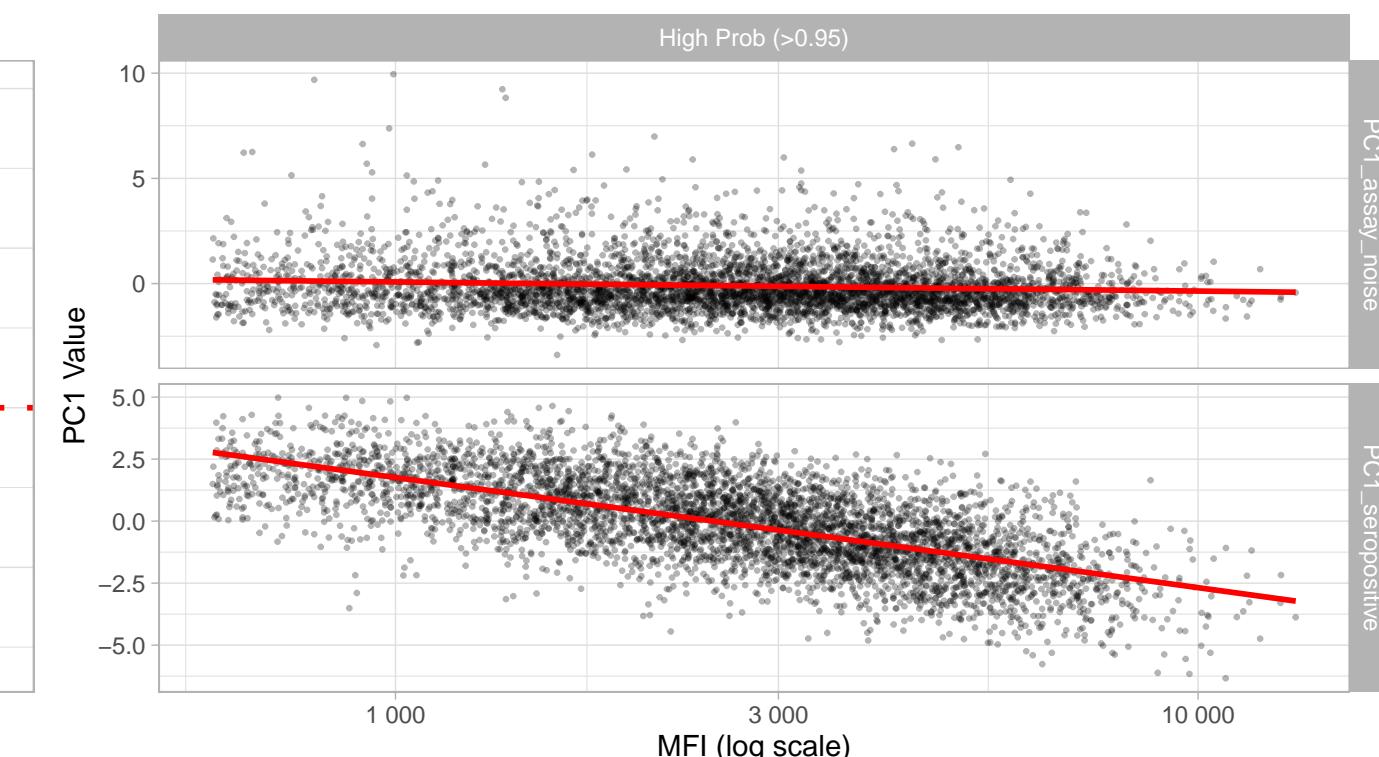
Hard vs Soft Classification: cmv\_pp150

Red line = 50% soft threshold, Blue line = hard threshold



PC1 Components vs IgG Level: cmv\_pp150

Top: PC1\_assay\_noise (seroneg), Bottom: PC1\_seropositive (seropos)

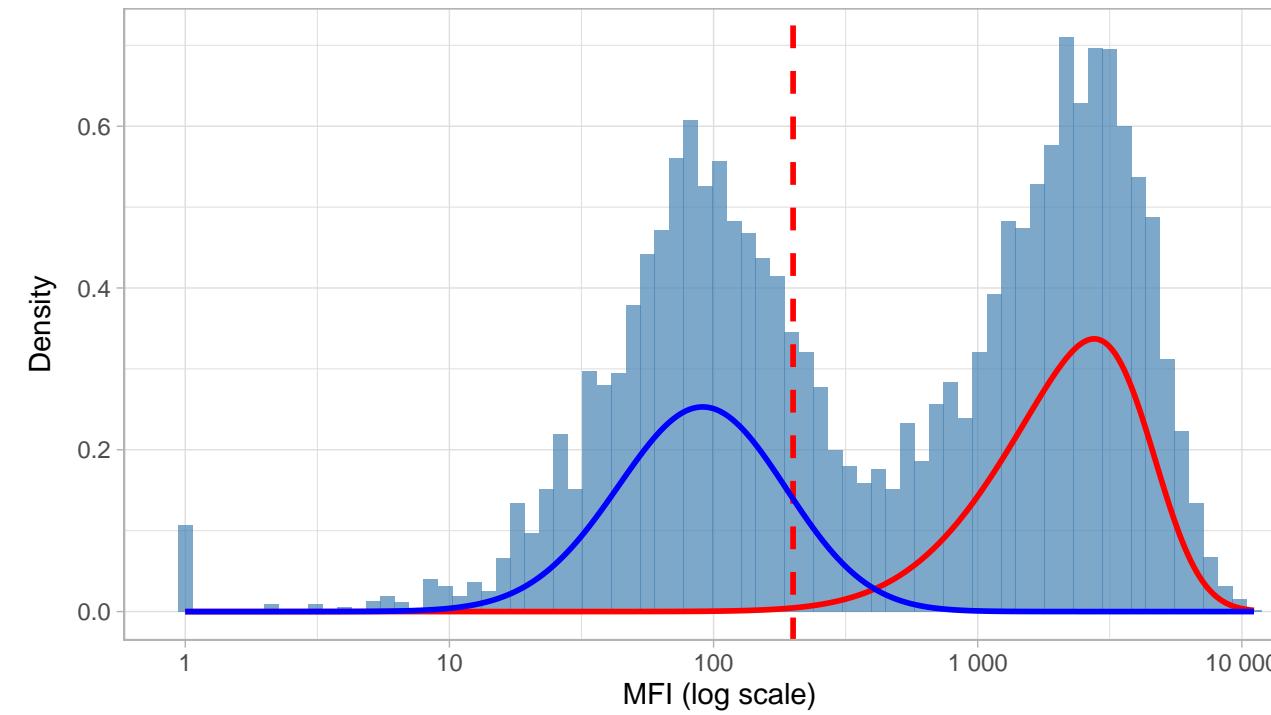


# Diagnostics: cmv\_pp28

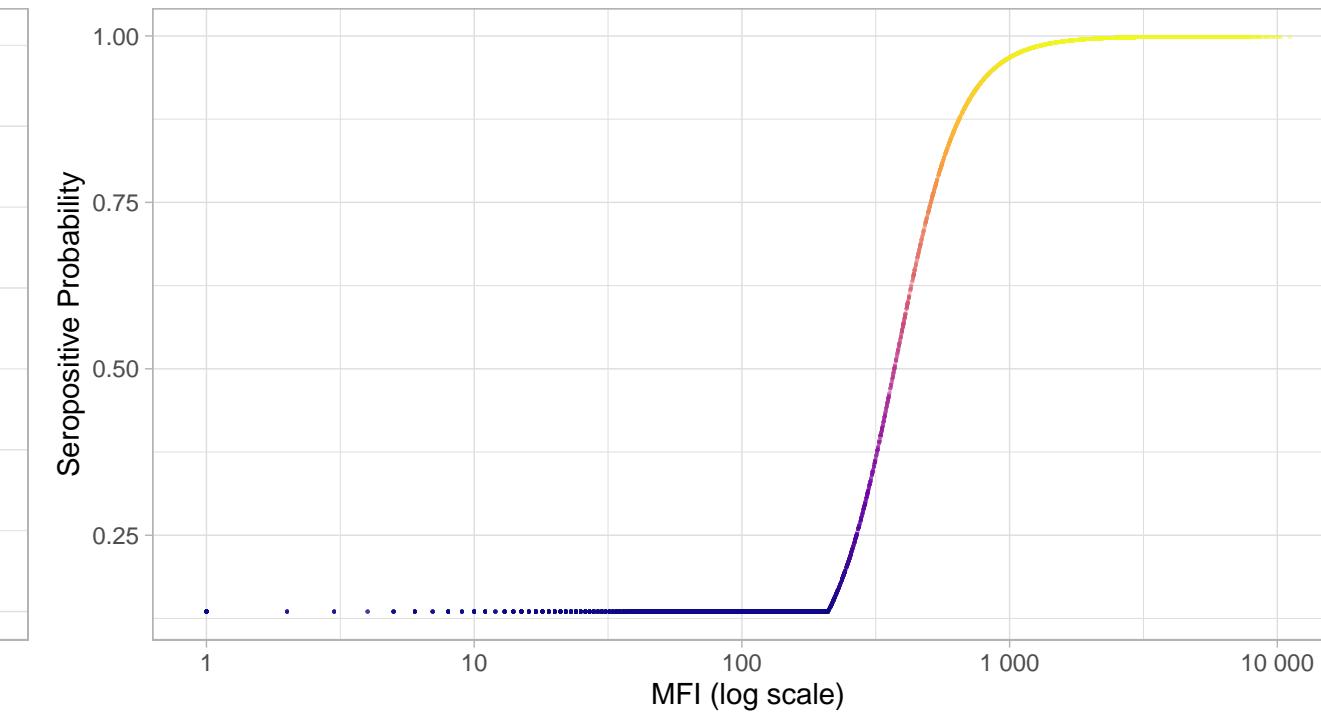
N=9424 | >0.95=4173 | <0.05=0 | Ambig=5251

Original MFI Distribution: cmv\_pp28

Hard cutoff threshold = 200

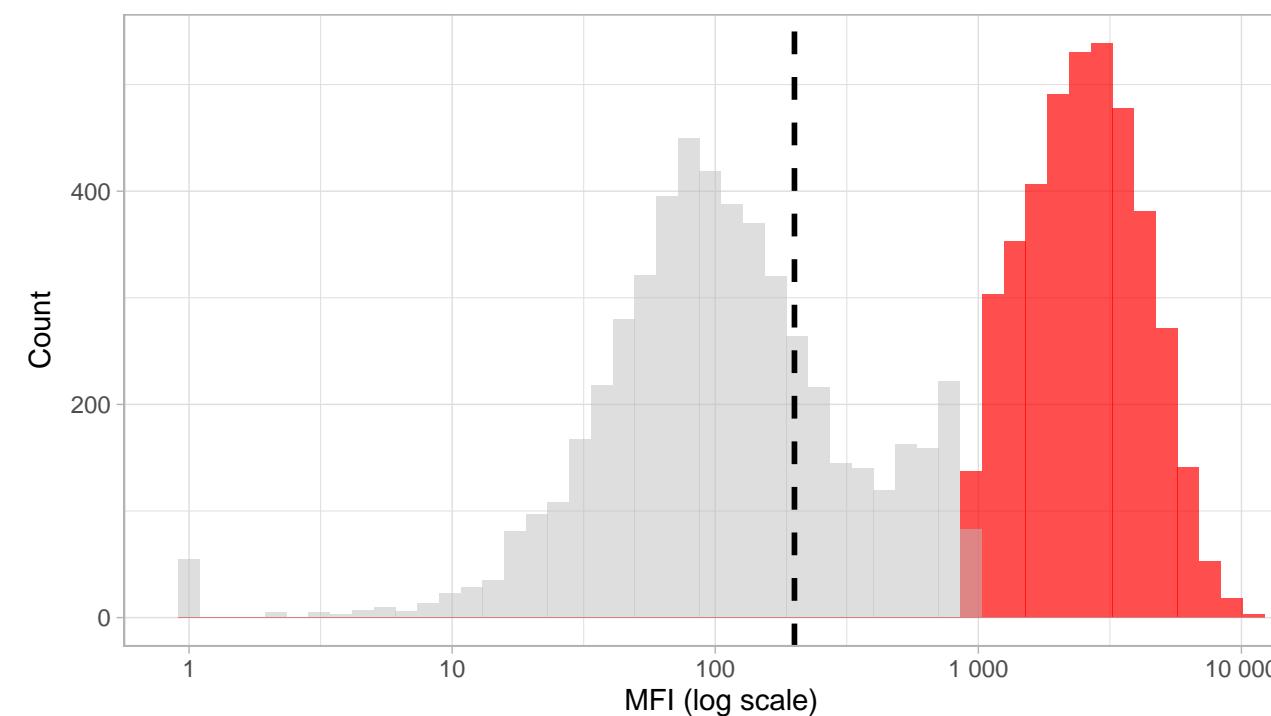


IgG vs Seropositive Probability: cmv\_pp28



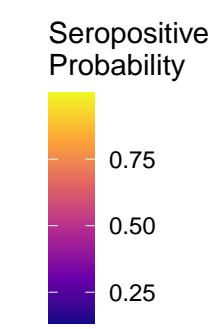
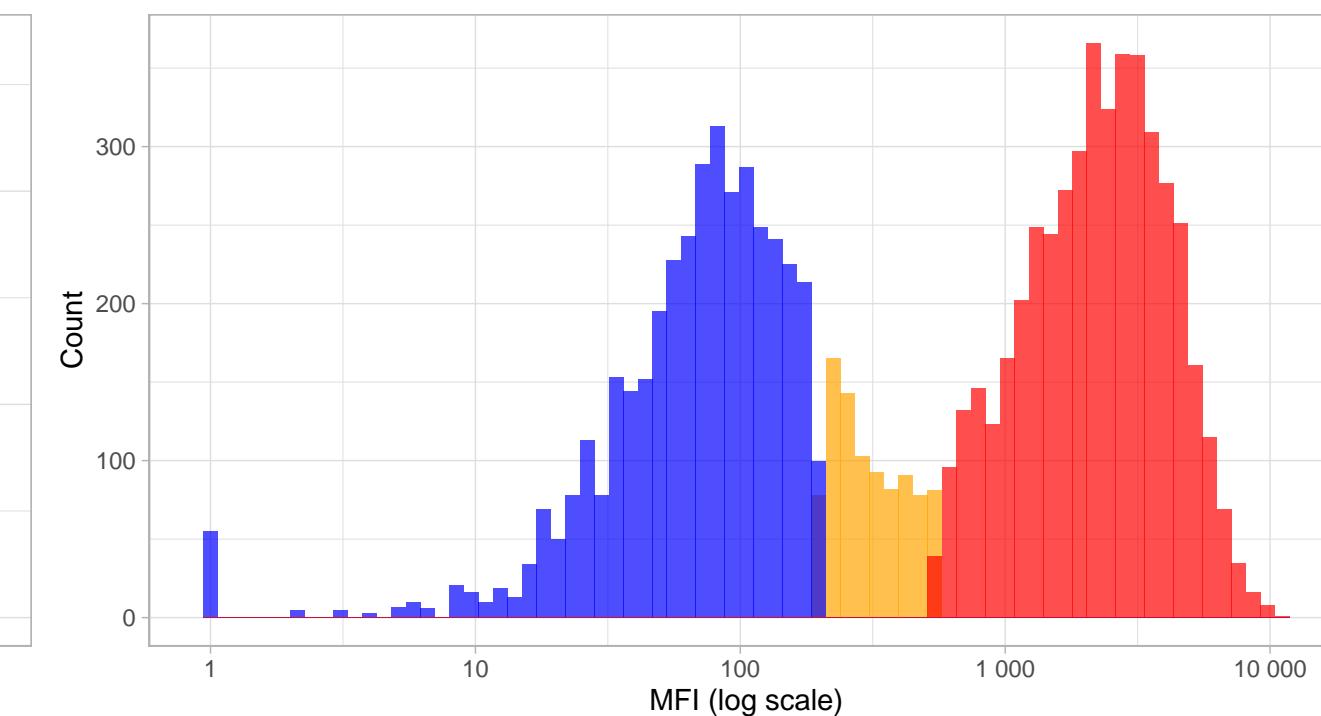
High-Confidence Seropositive Distribution: cmv\_pp28

Prob threshold = 0.96



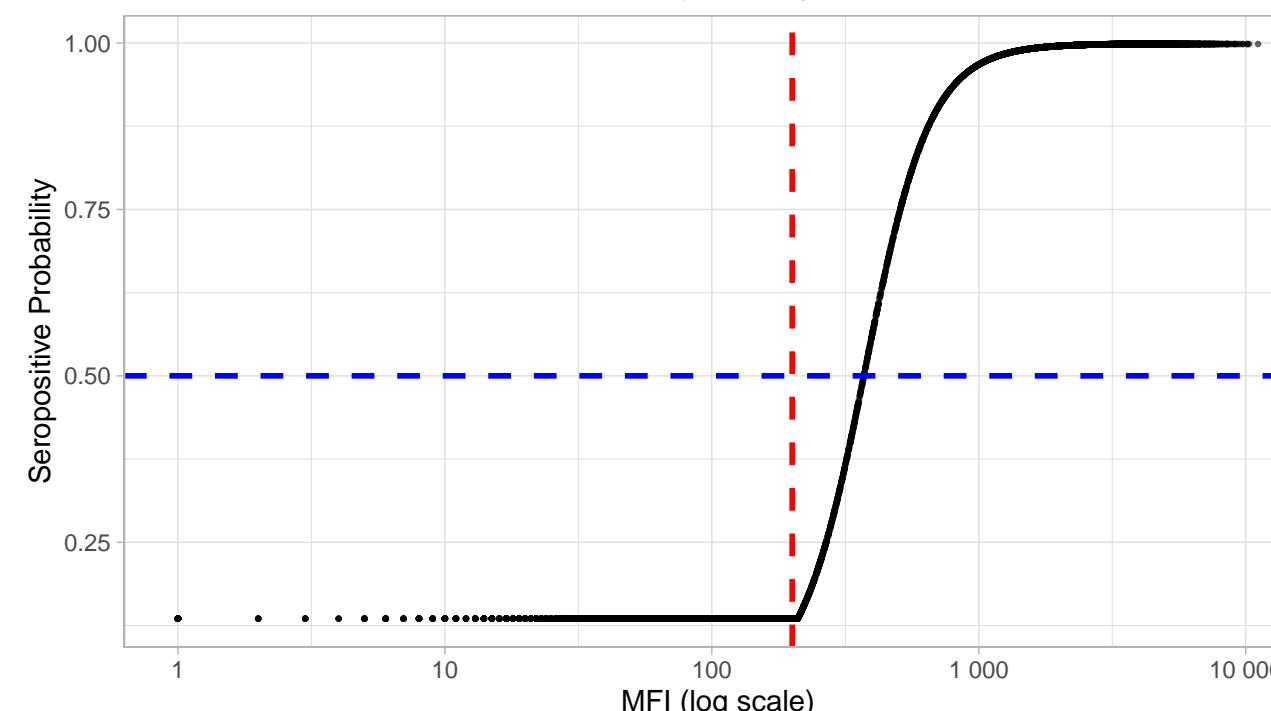
Phenotype Distribution by Classification: cmv\_pp28

Comparing hard vs soft classifications



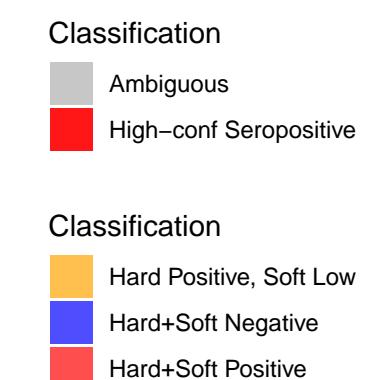
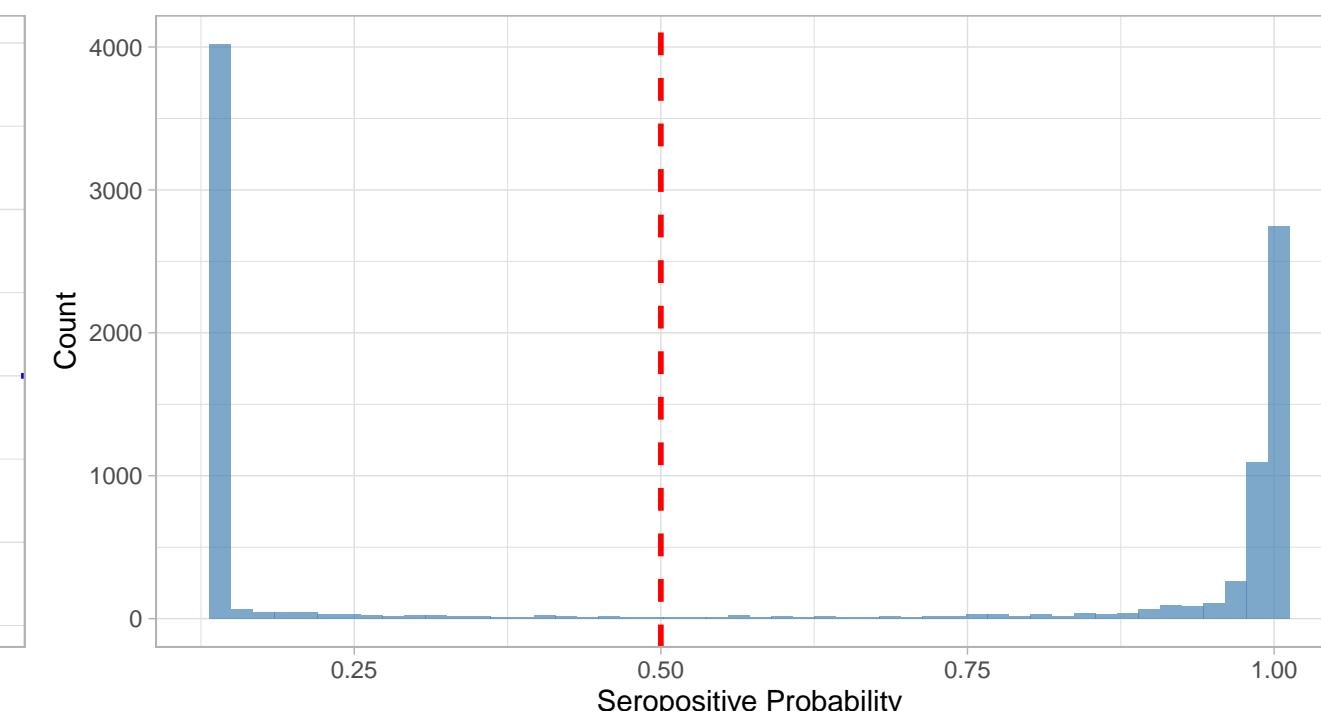
IgG Level vs Seropositive Probability: cmv\_pp28

Red line = hard threshold, Blue line = 50% probability



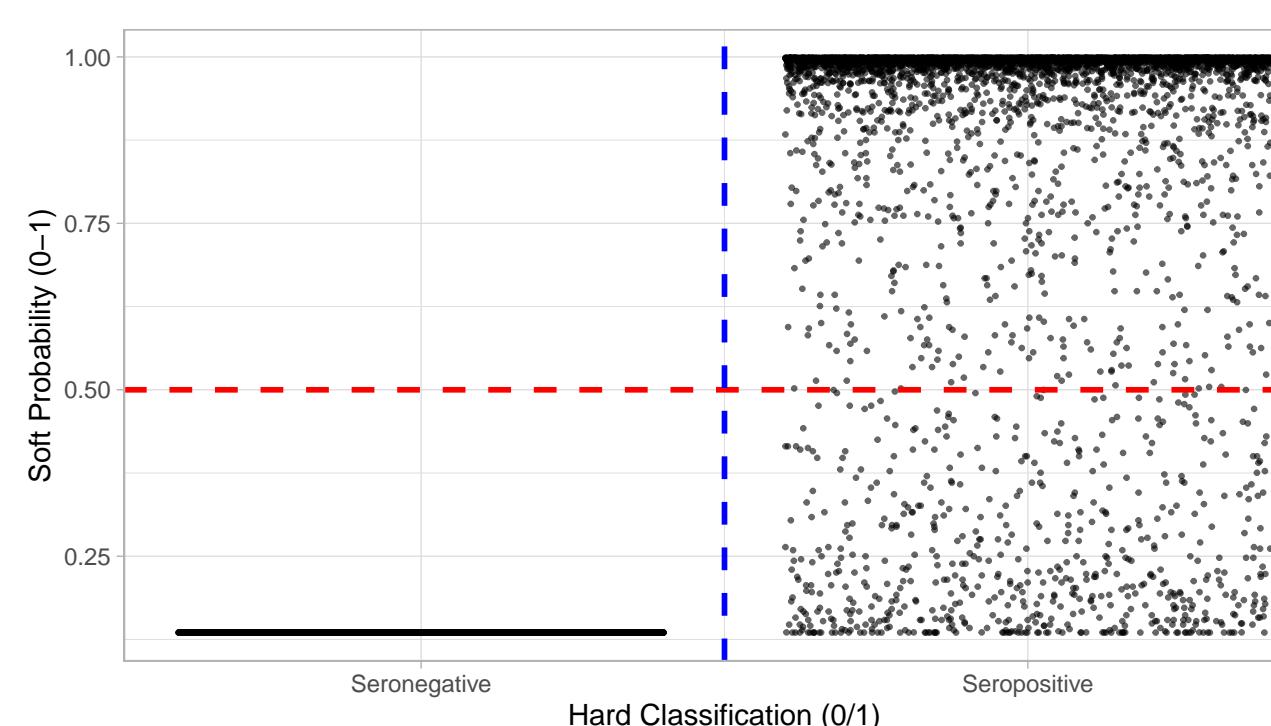
Distribution of Seropositive Probabilities: cmv\_pp28

Red line = 50% threshold



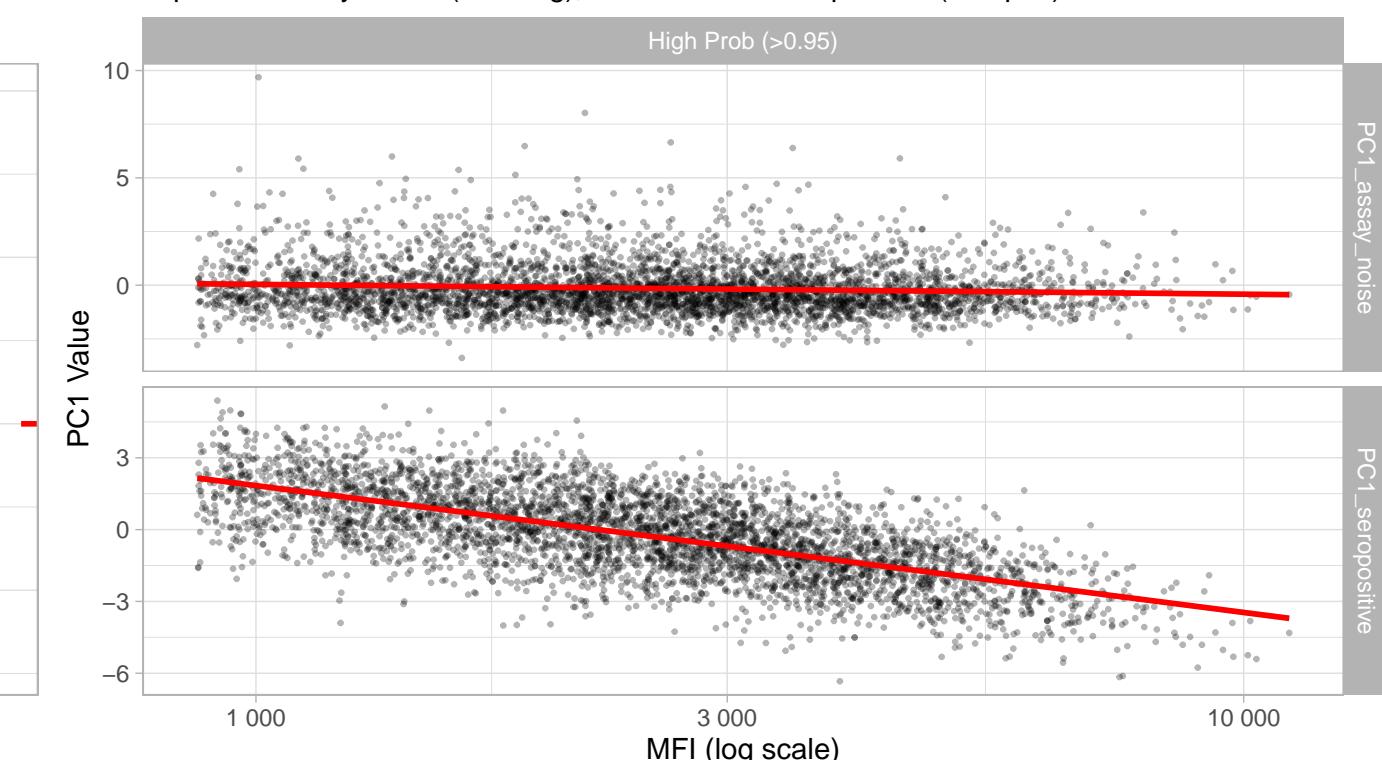
Hard vs Soft Classification: cmv\_pp28

Red line = 50% soft threshold, Blue line = hard threshold



PC1 Components vs IgG Level: cmv\_pp28

Top: PC1\_assay\_noise (seroneg), Bottom: PC1\_seropositive (seropos)

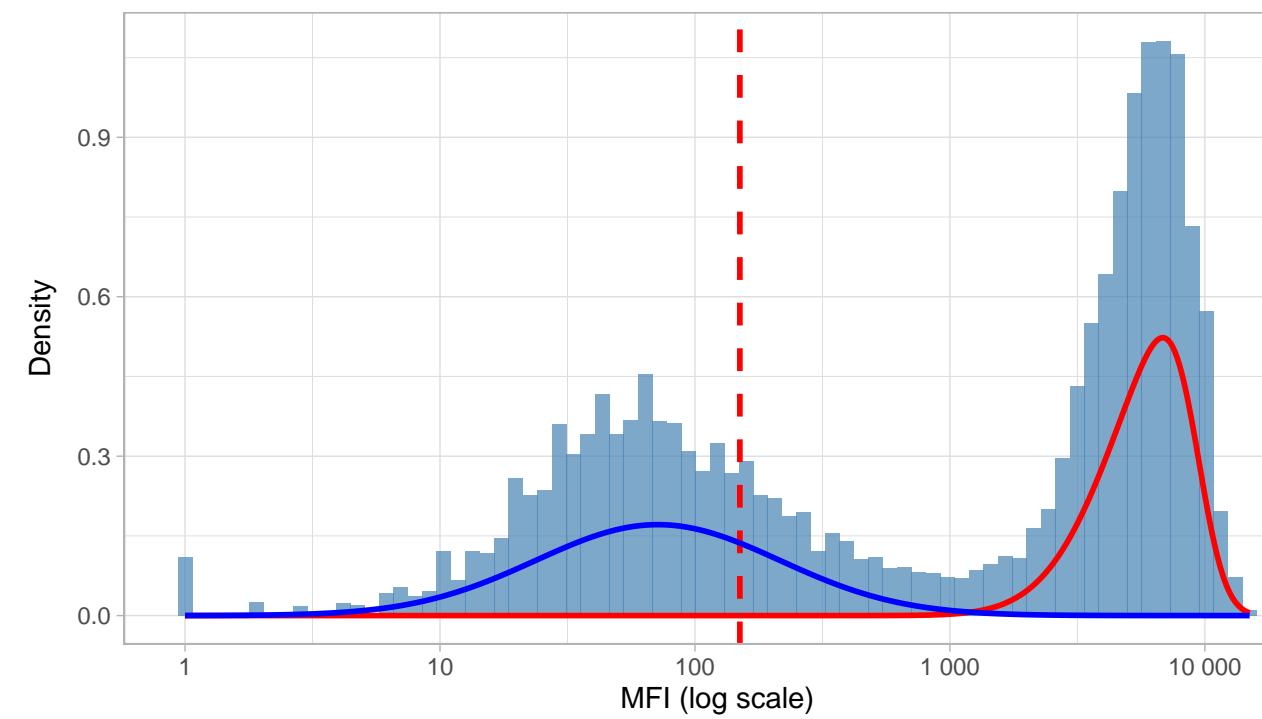


# Diagnostics: cmv\_pp52

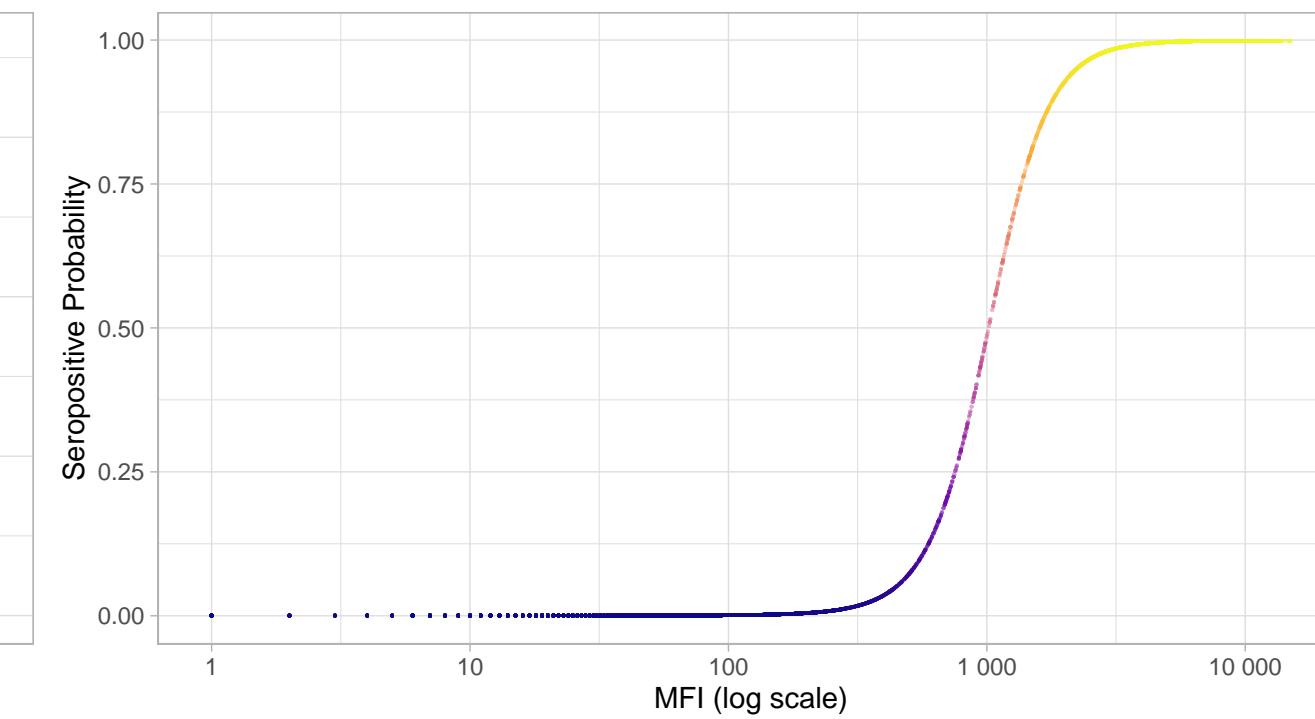
N=9424 | >0.95=4647 | <0.05=4141 | Ambig=636

Original MFI Distribution: cmv\_pp52

Hard cutoff threshold = 150

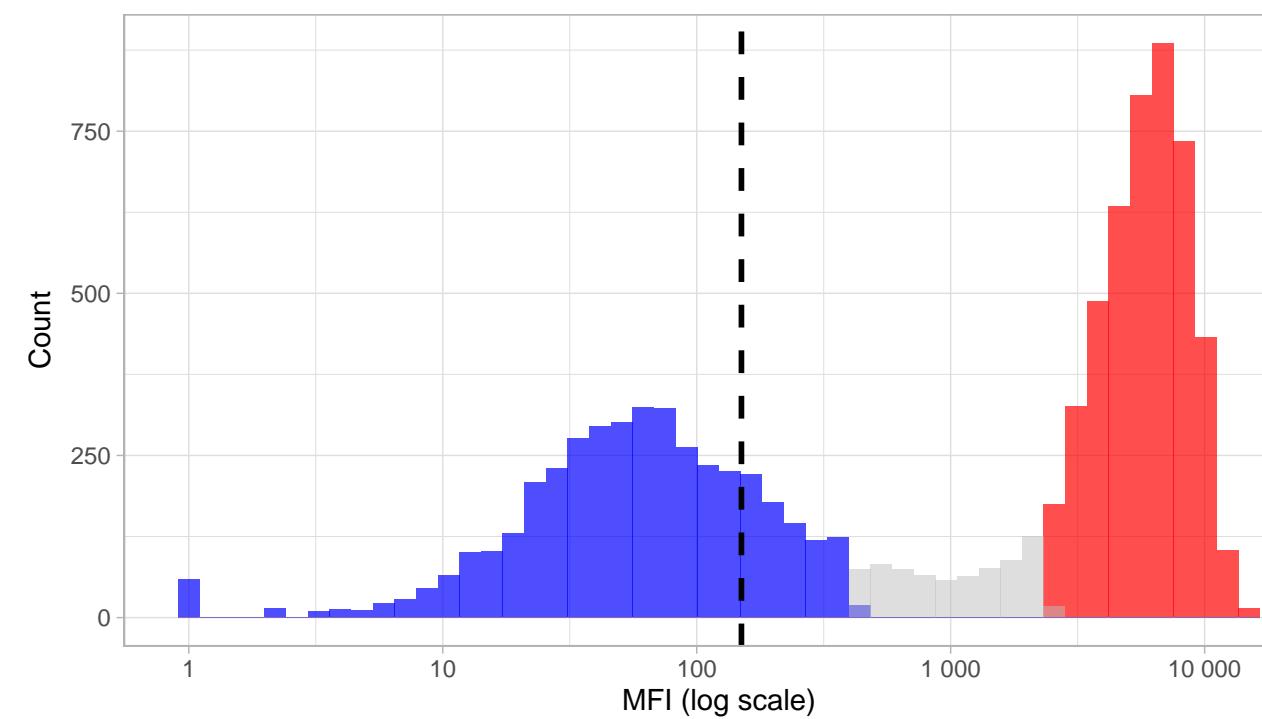


IgG vs Seropositive Probability: cmv\_pp52



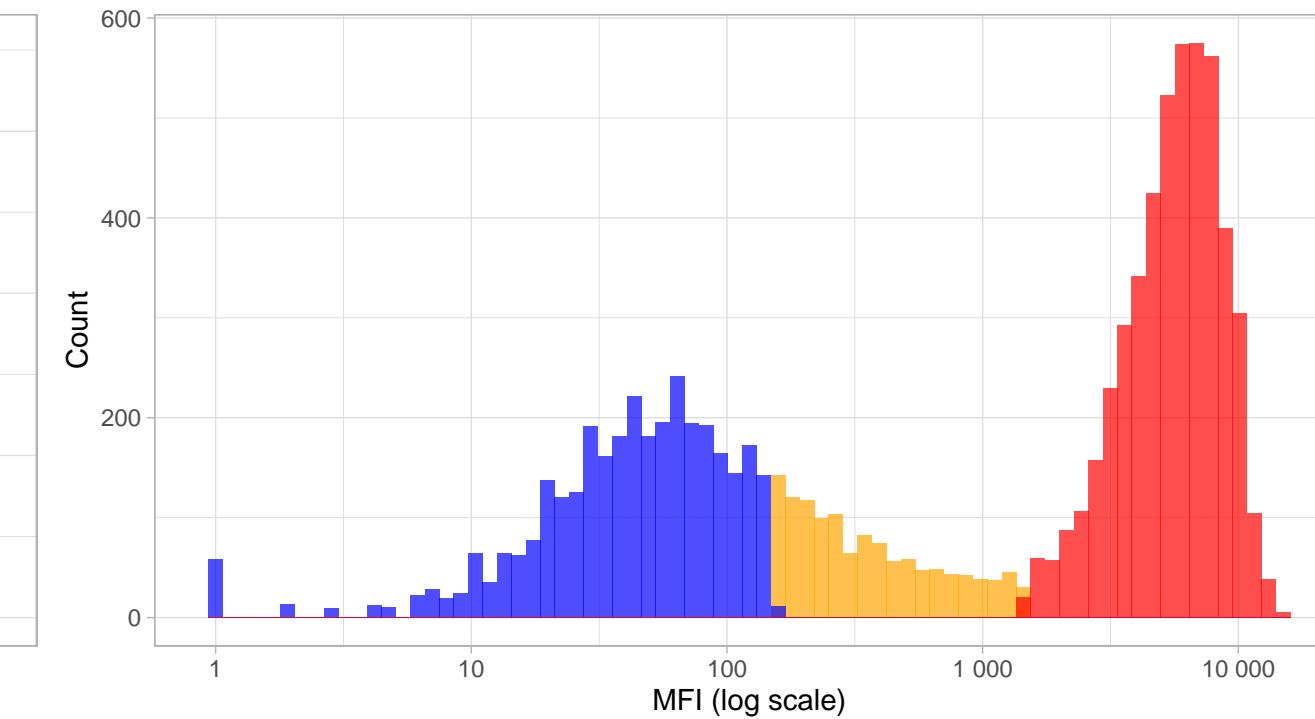
High-Confidence Seropositive Distribution: cmv\_pp52

Prob threshold = 0.96



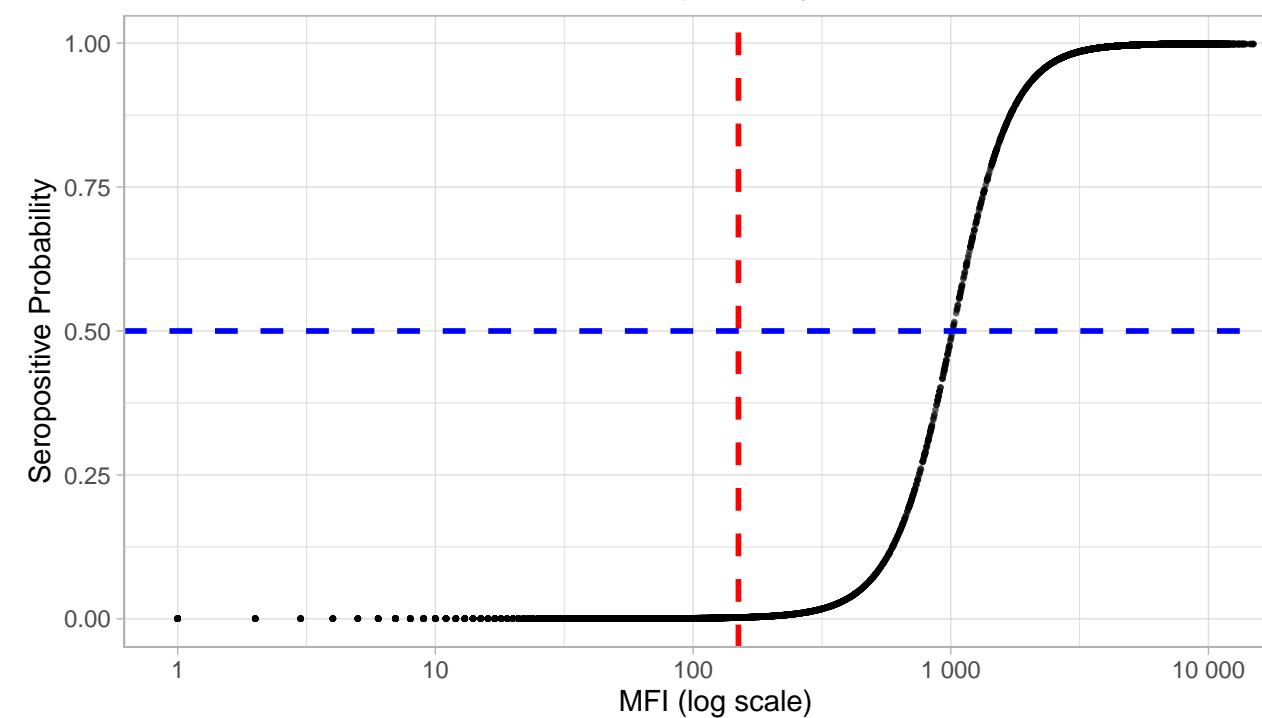
Phenotype Distribution by Classification: cmv\_pp52

Comparing hard vs soft classifications



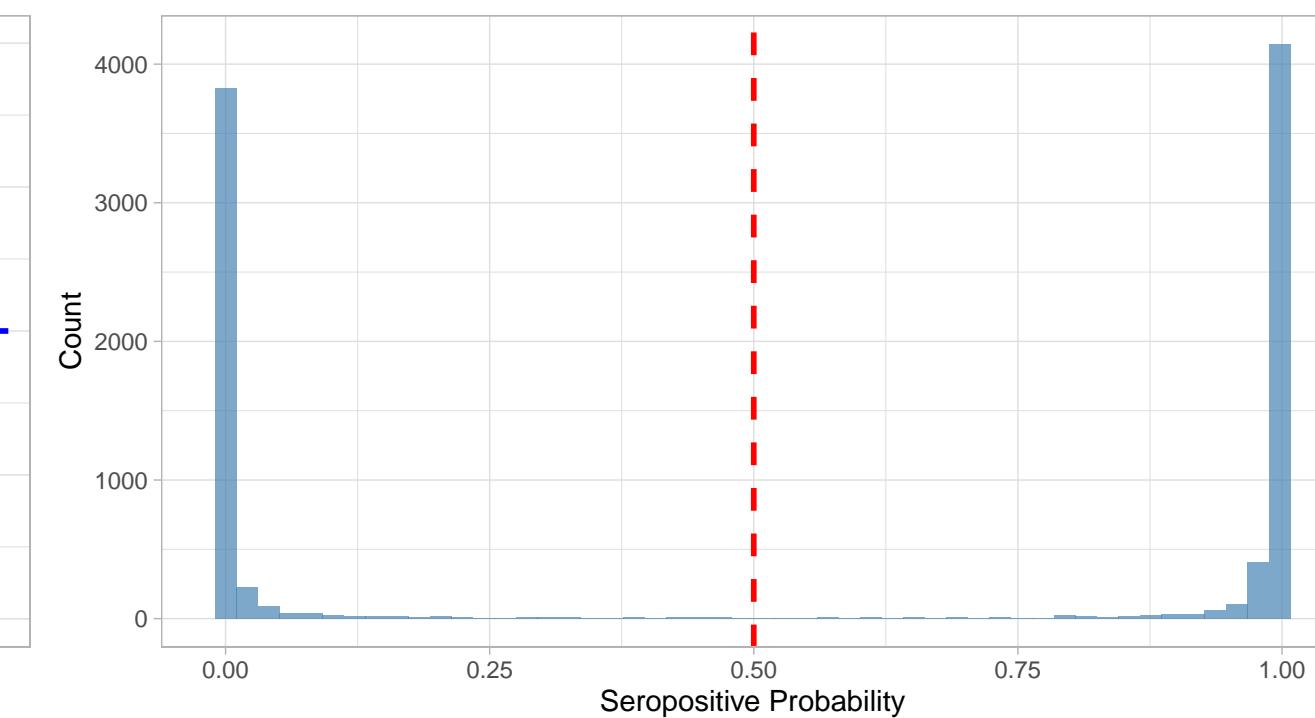
IgG Level vs Seropositive Probability: cmv\_pp52

Red line = hard threshold, Blue line = 50% probability



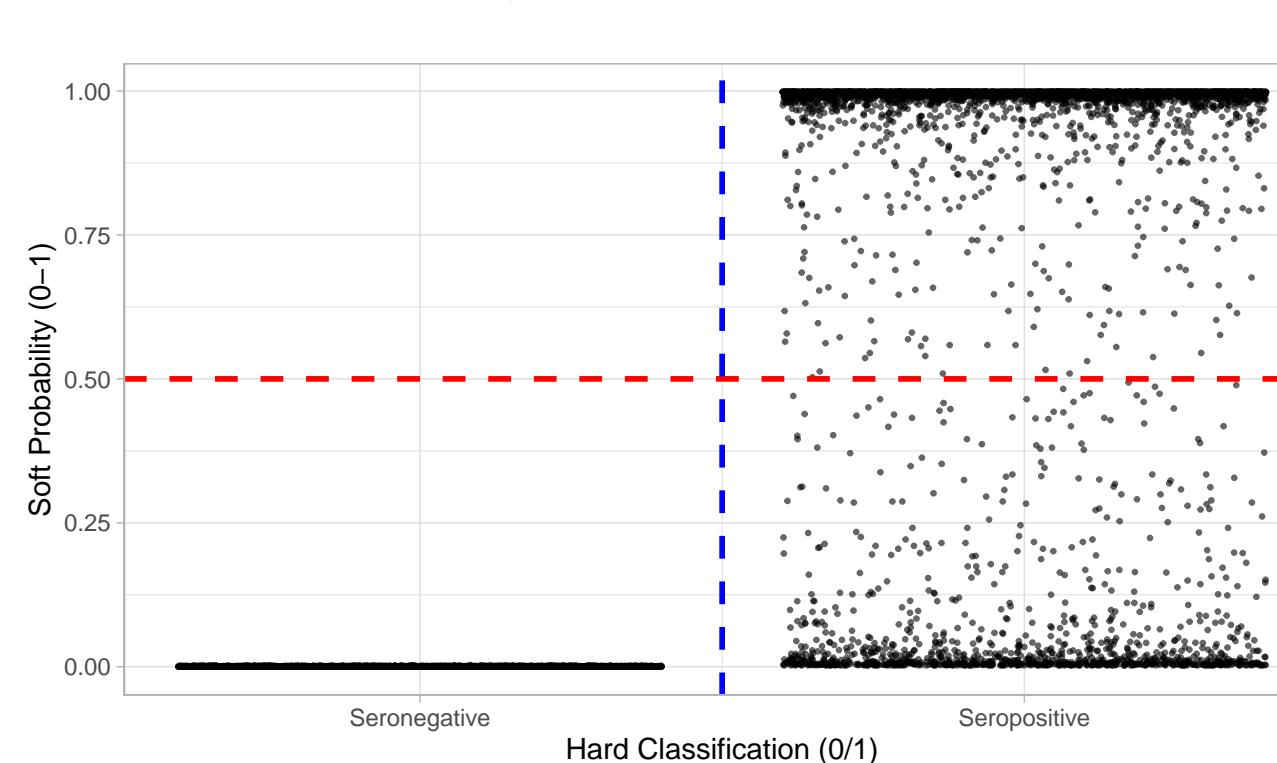
Distribution of Seropositive Probabilities: cmv\_pp52

Red line = 50% threshold



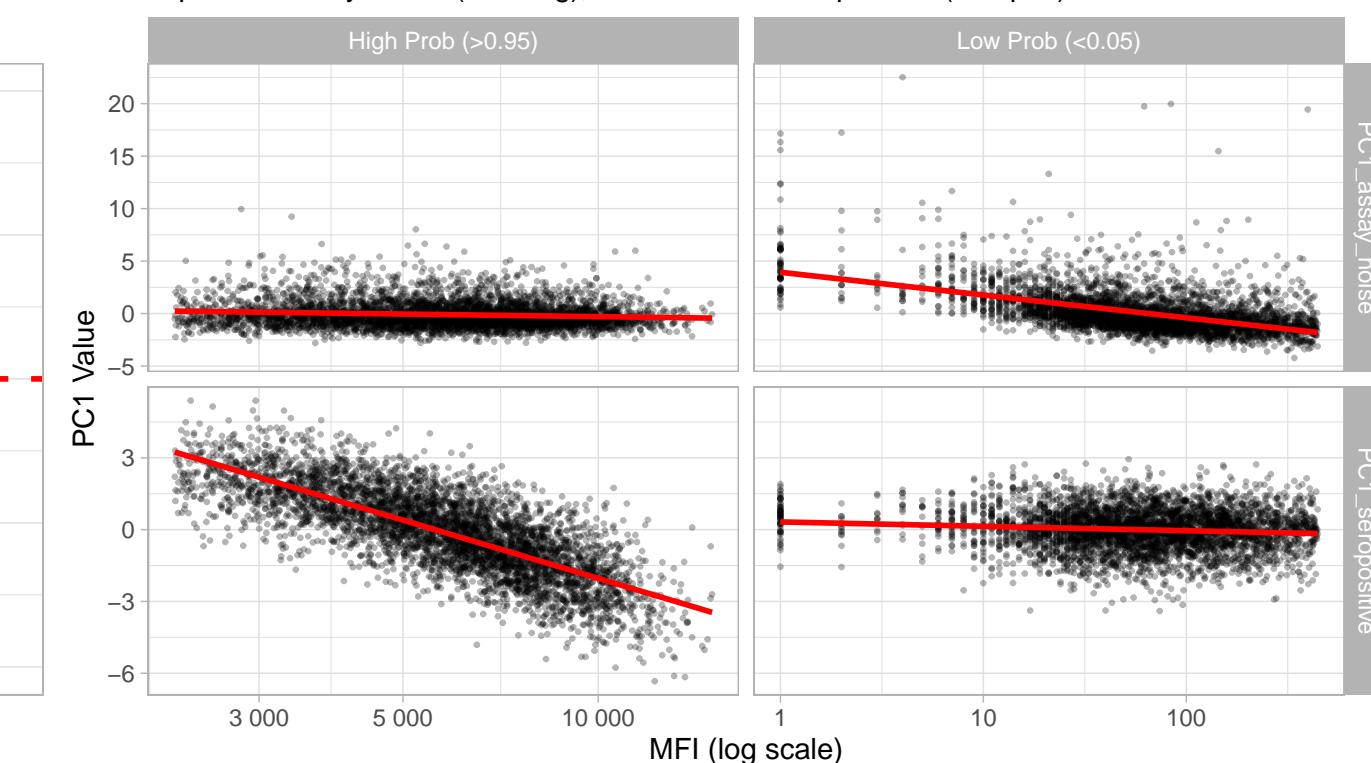
Hard vs Soft Classification: cmv\_pp52

Red line = 50% soft threshold, Blue line = hard threshold



PC1 Components vs IgG Level: cmv\_pp52

Top: PC1\_assay\_noise (seroneg), Bottom: PC1\_seropositive (seropos)

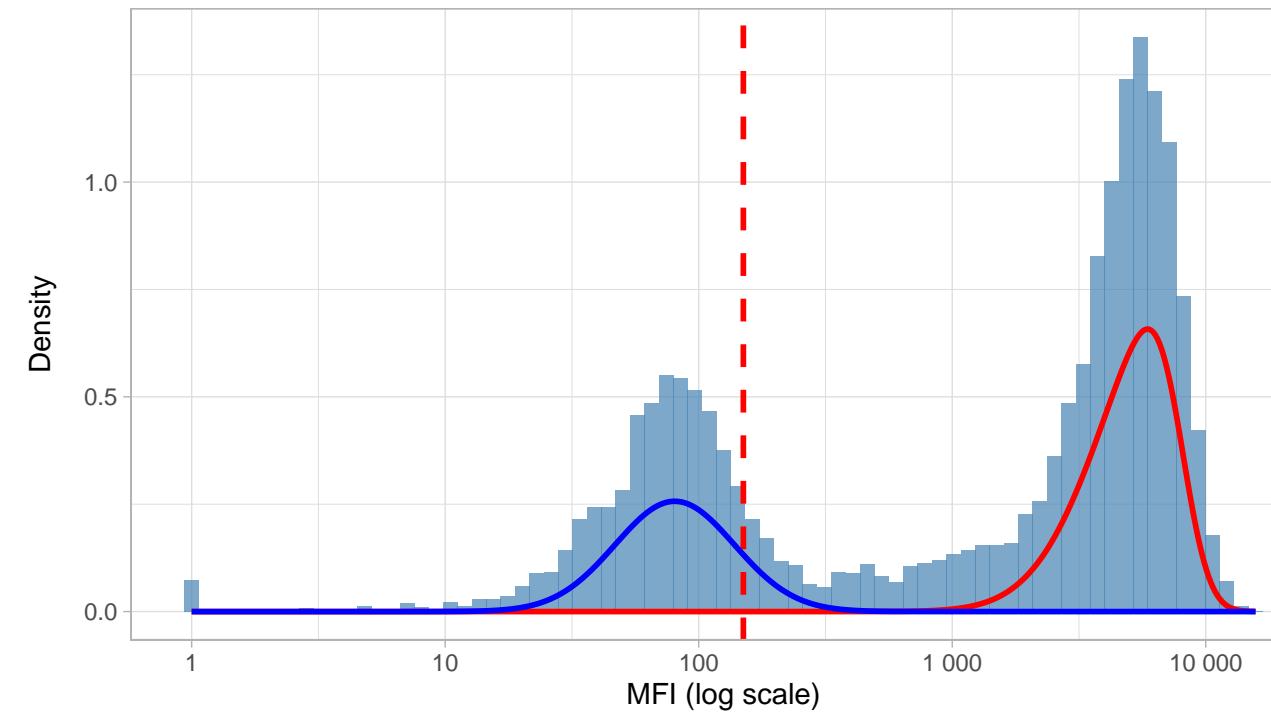


# Diagnostics: hsv1

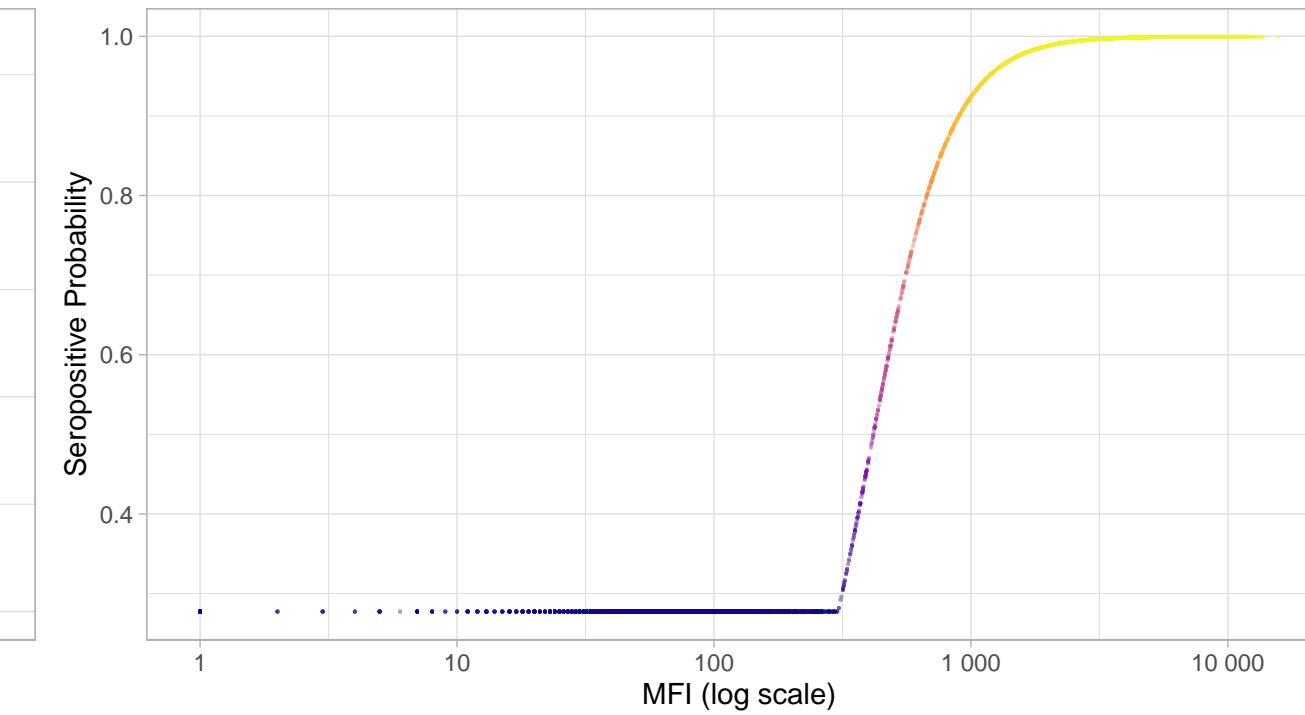
N=9424 | >0.95=5650 | <0.05=0 | Ambig=3774

Original MFI Distribution: hsv1

Hard cutoff threshold = 150

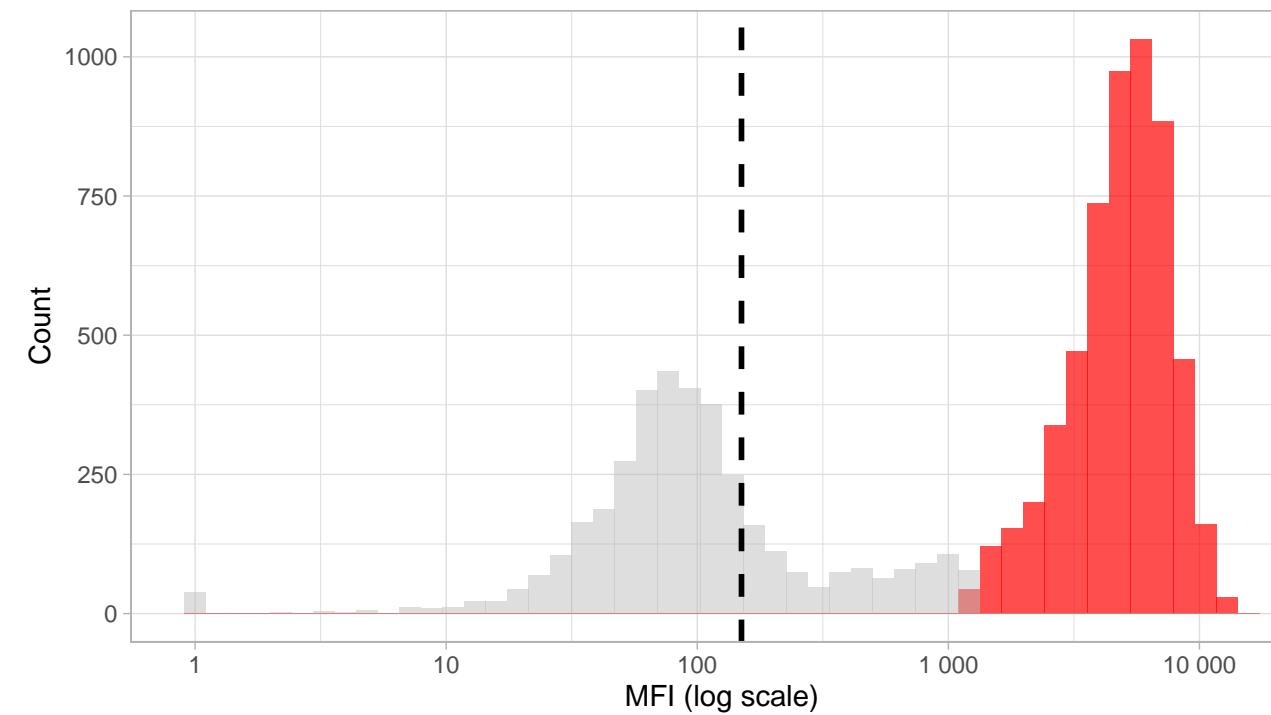


IgG vs Seropositive Probability: hsv1



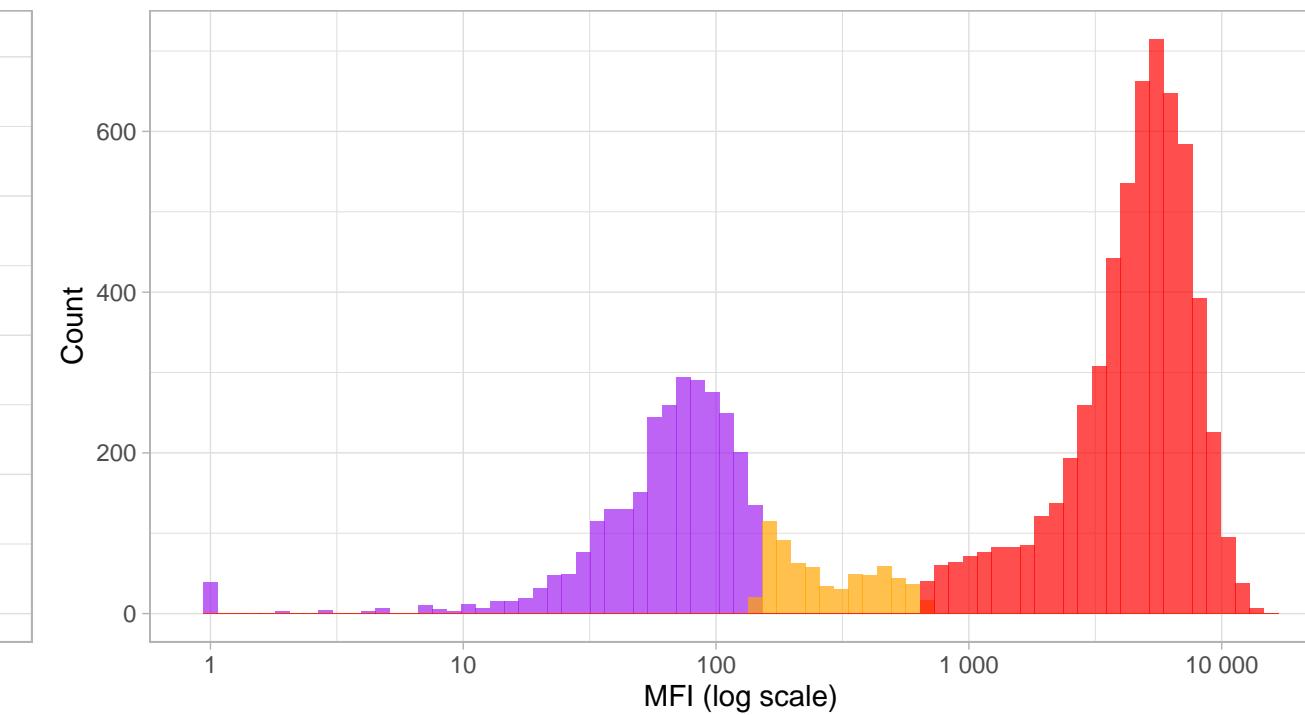
High-Confidence Seropositive Distribution: hsv1

Prob threshold = 0.96



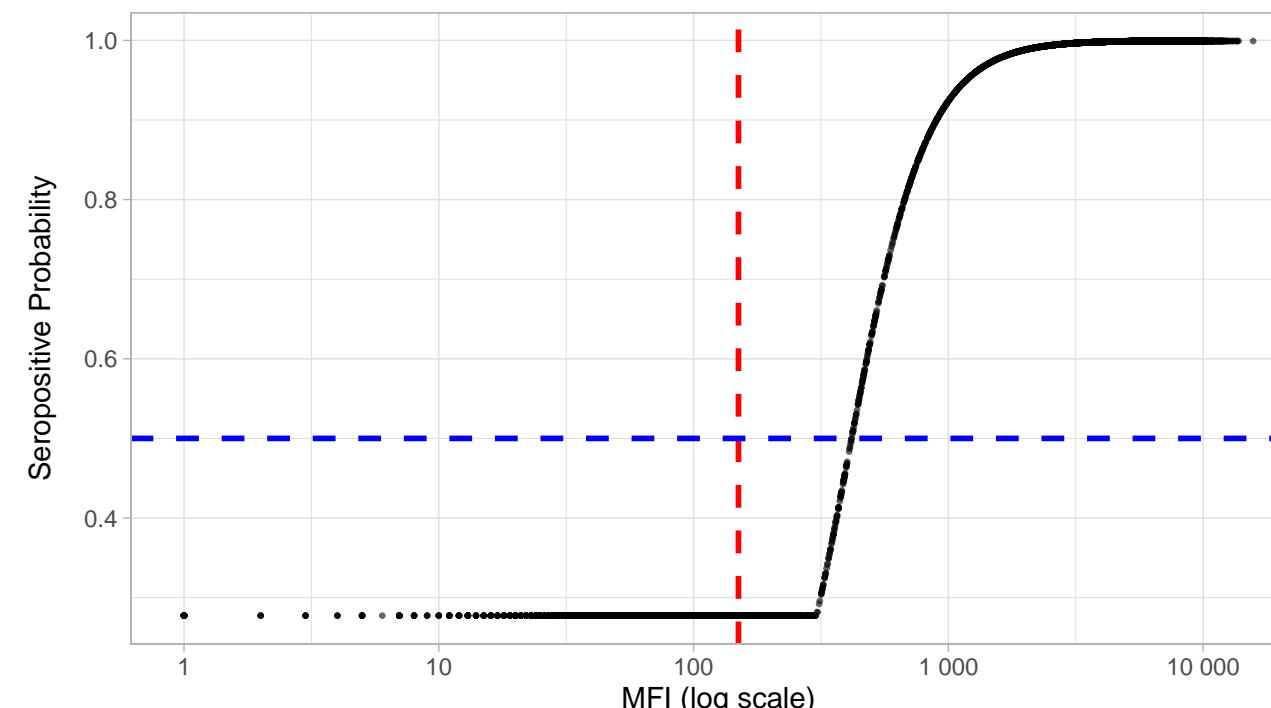
Phenotype Distribution by Classification: hsv1

Comparing hard vs soft classifications



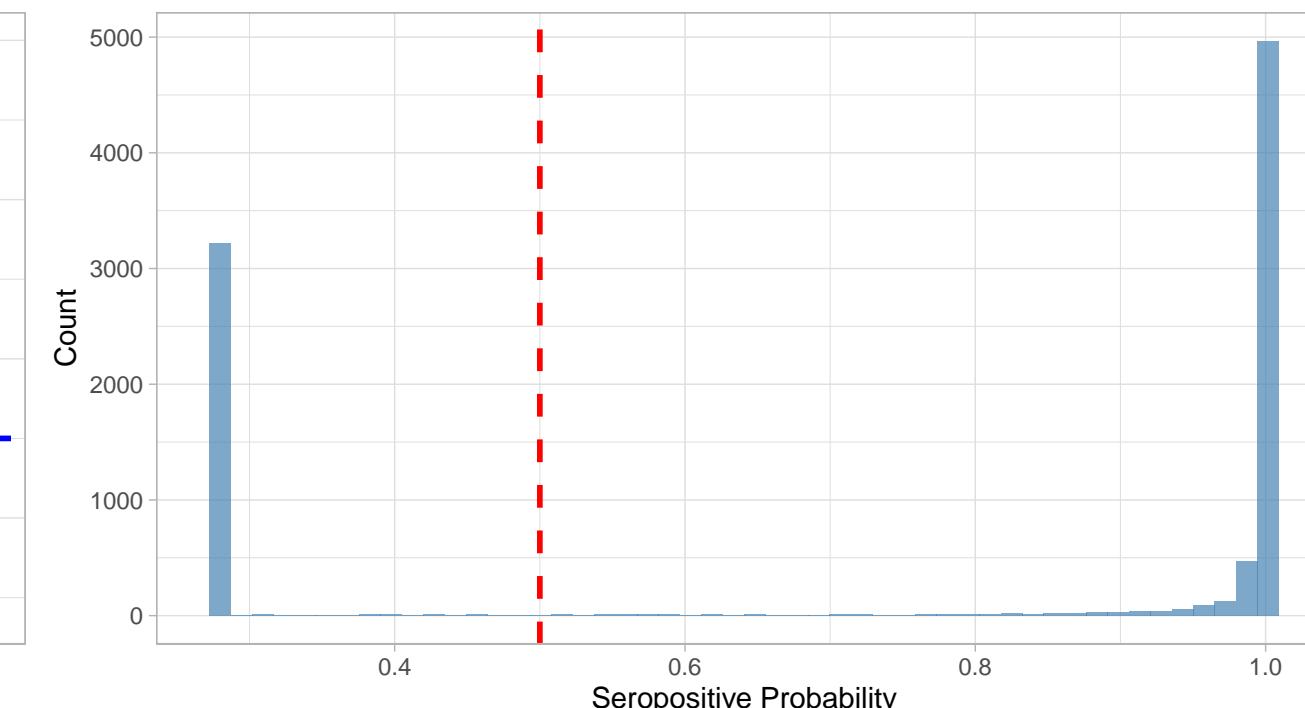
IgG Level vs Seropositive Probability: hsv1

Red line = hard threshold, Blue line = 50% probability



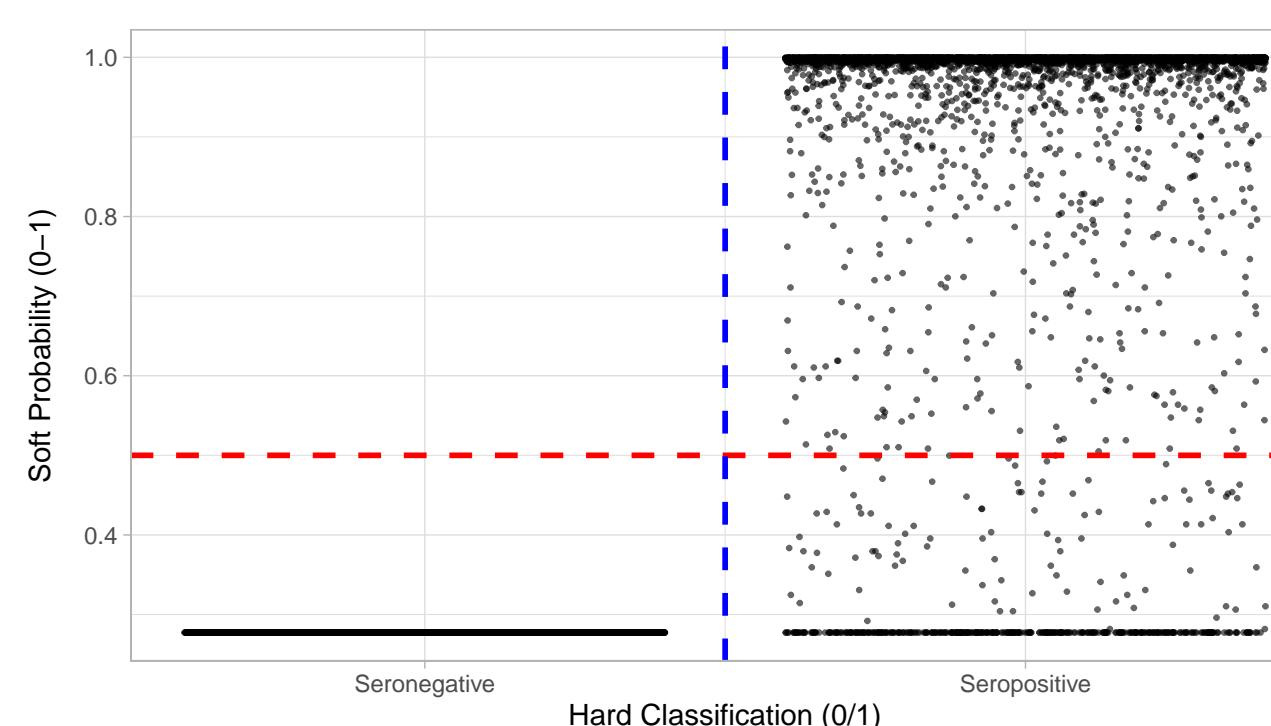
Distribution of Seropositive Probabilities: hsv1

Red line = 50% threshold



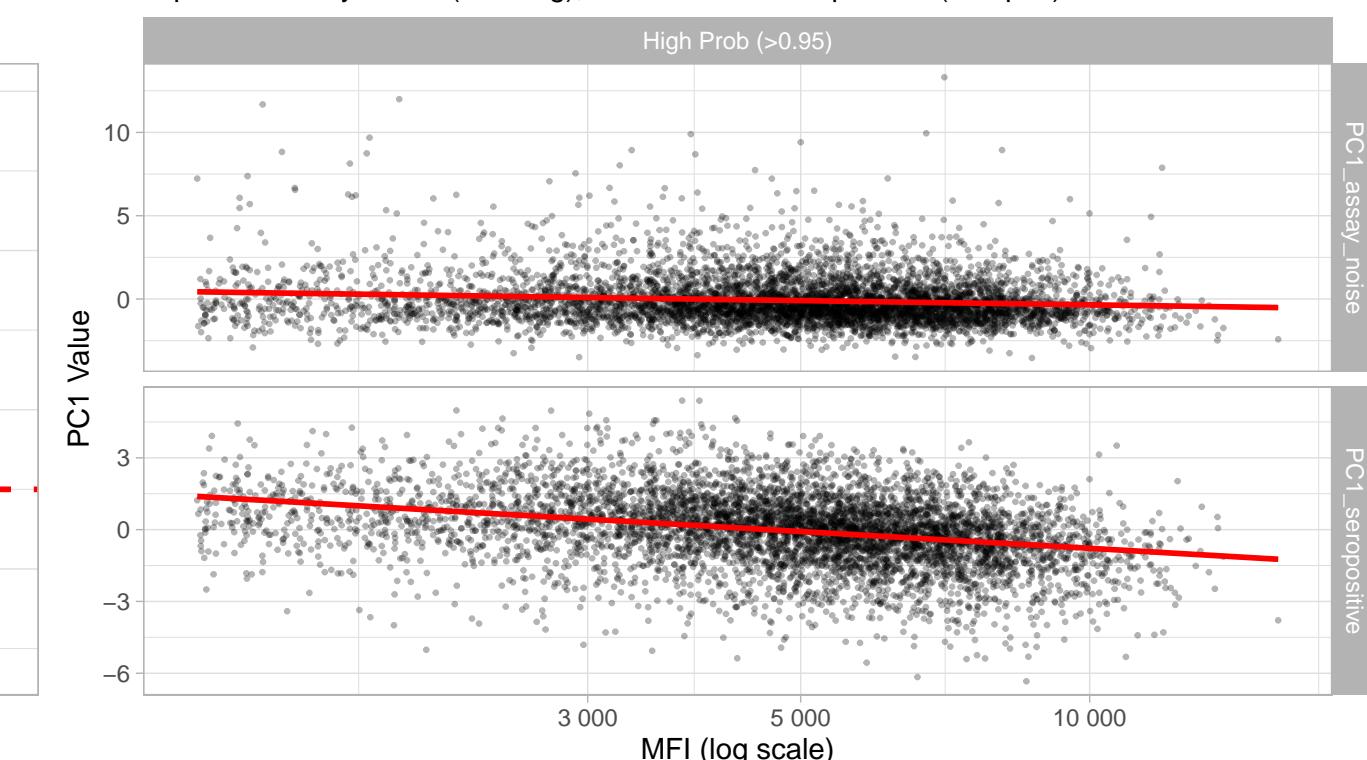
Hard vs Soft Classification: hsv1

Red line = 50% soft threshold, Blue line = hard threshold



PC1 Components vs IgG Level: hsv1

Top: PC1\_assay\_noise (seroneg), Bottom: PC1\_seropositive (seropos)

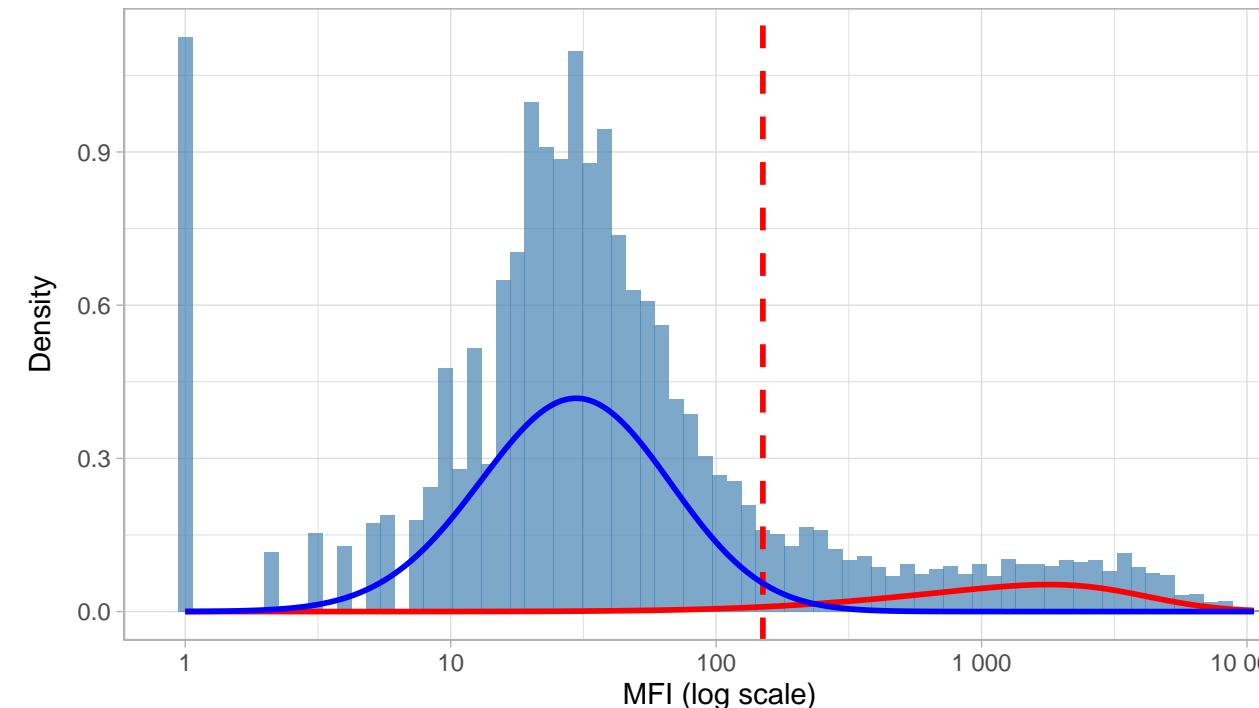


# Diagnostics: hsv2

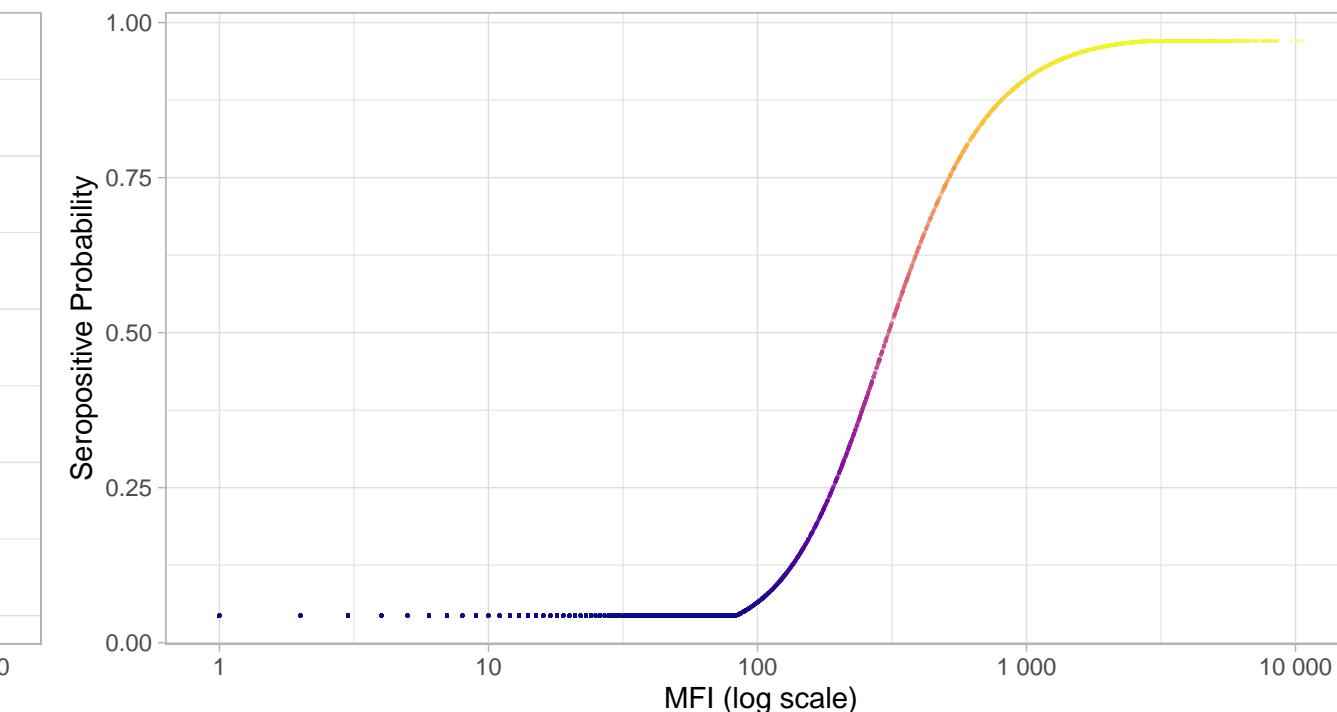
N=9424 | >0.95=525 | <0.05=7378 | Ambig=1521

Original MFI Distribution: hsv2

Hard cutoff threshold = 150

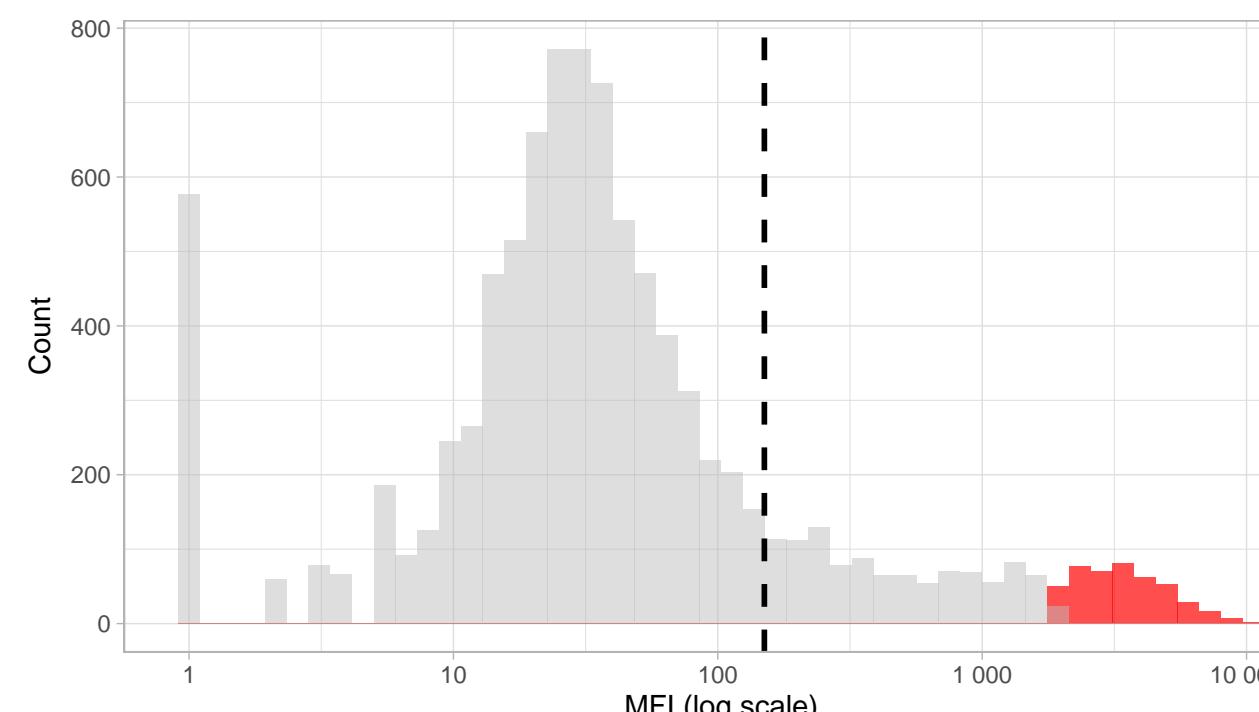


IgG vs Seropositive Probability: hsv2



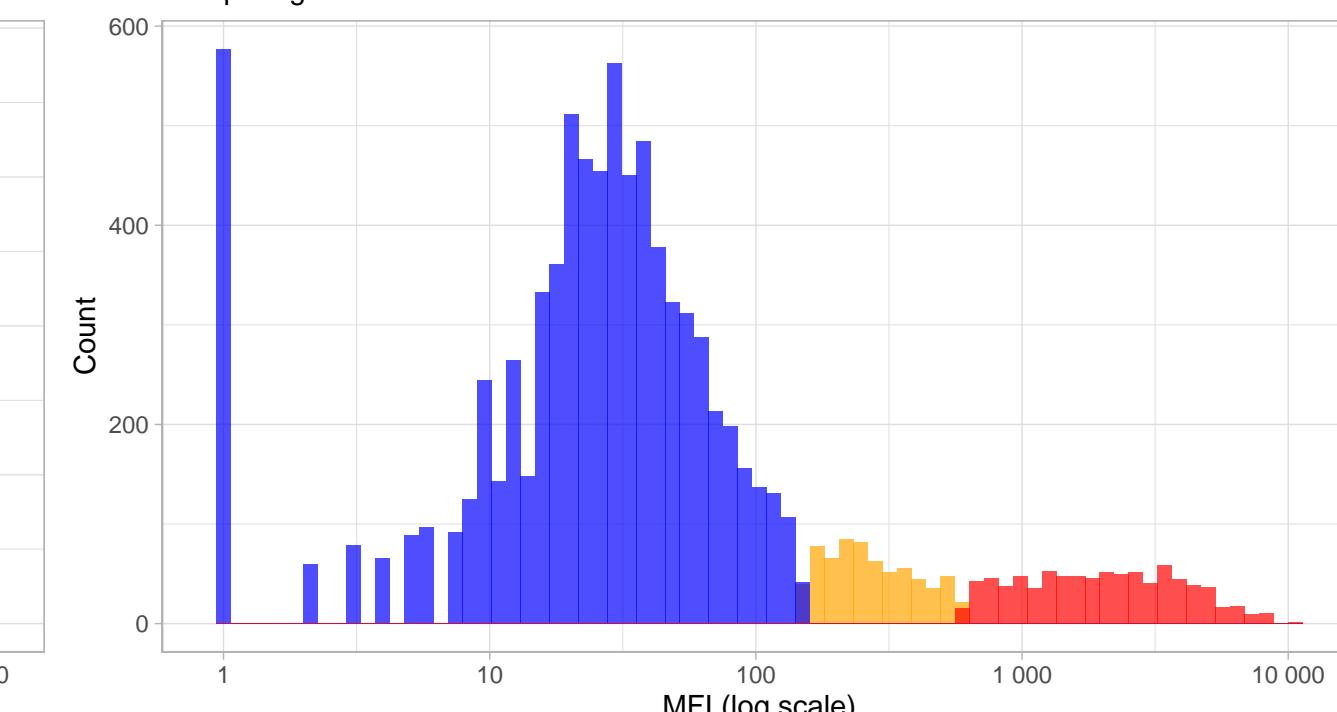
High-Confidence Seropositive Distribution: hsv2

Prob threshold = 0.96



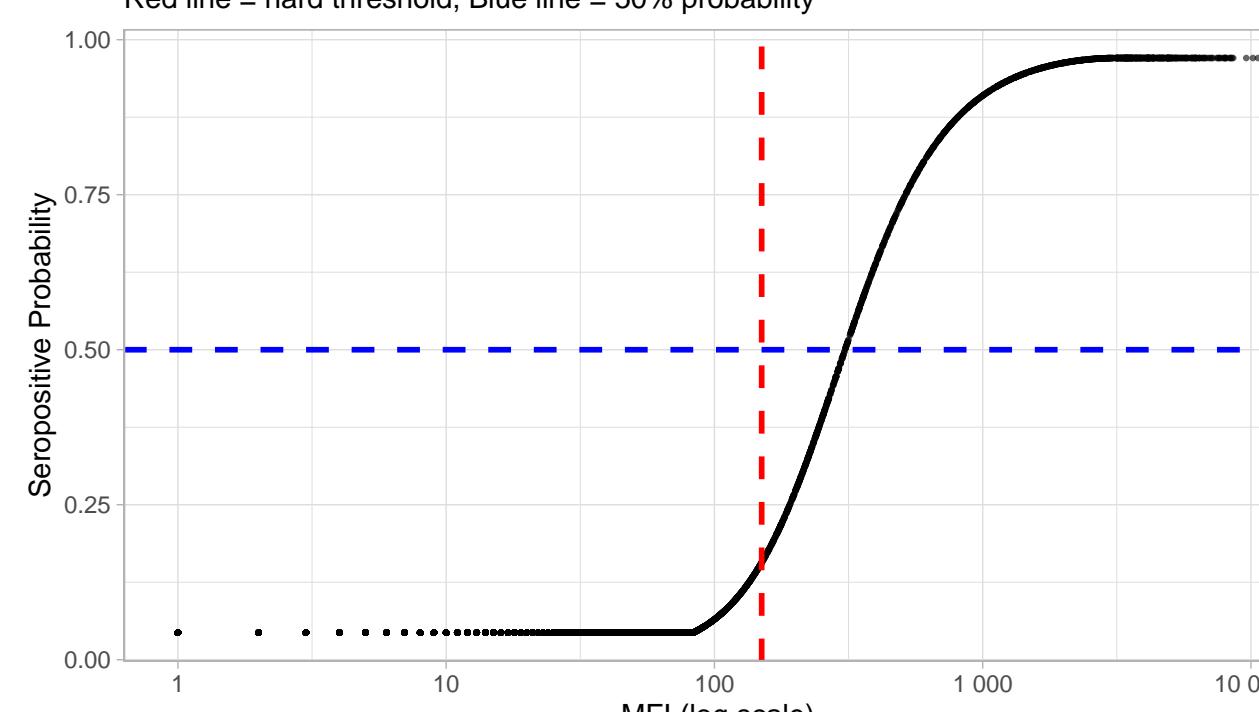
Phenotype Distribution by Classification: hsv2

Comparing hard vs soft classifications



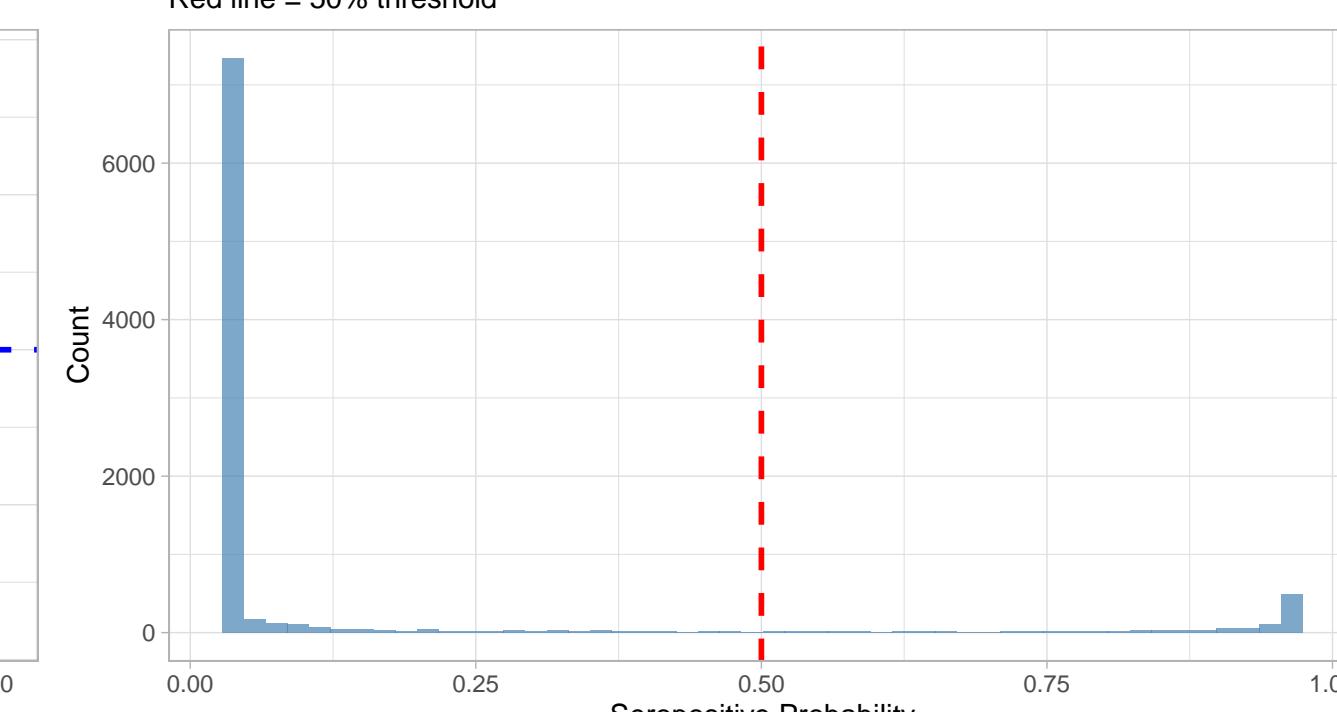
IgG Level vs Seropositive Probability: hsv2

Red line = hard threshold, Blue line = 50% probability



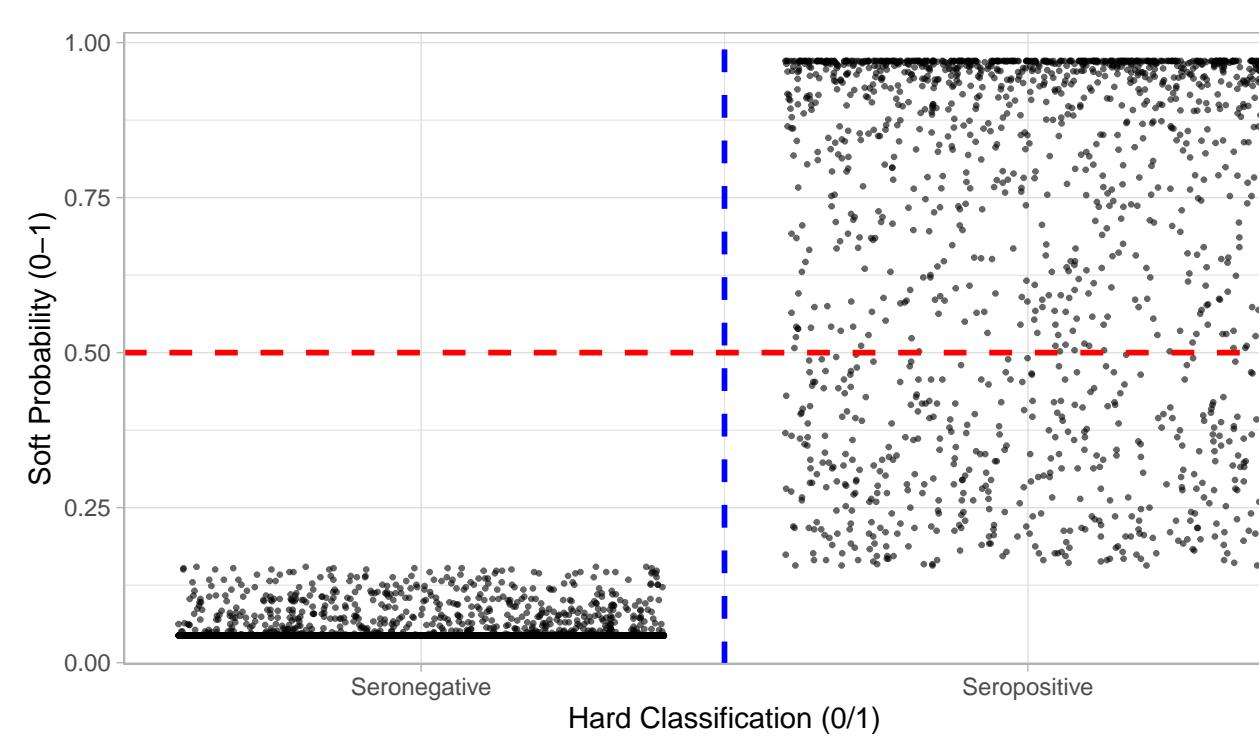
Distribution of Seropositive Probabilities: hsv2

Red line = 50% threshold



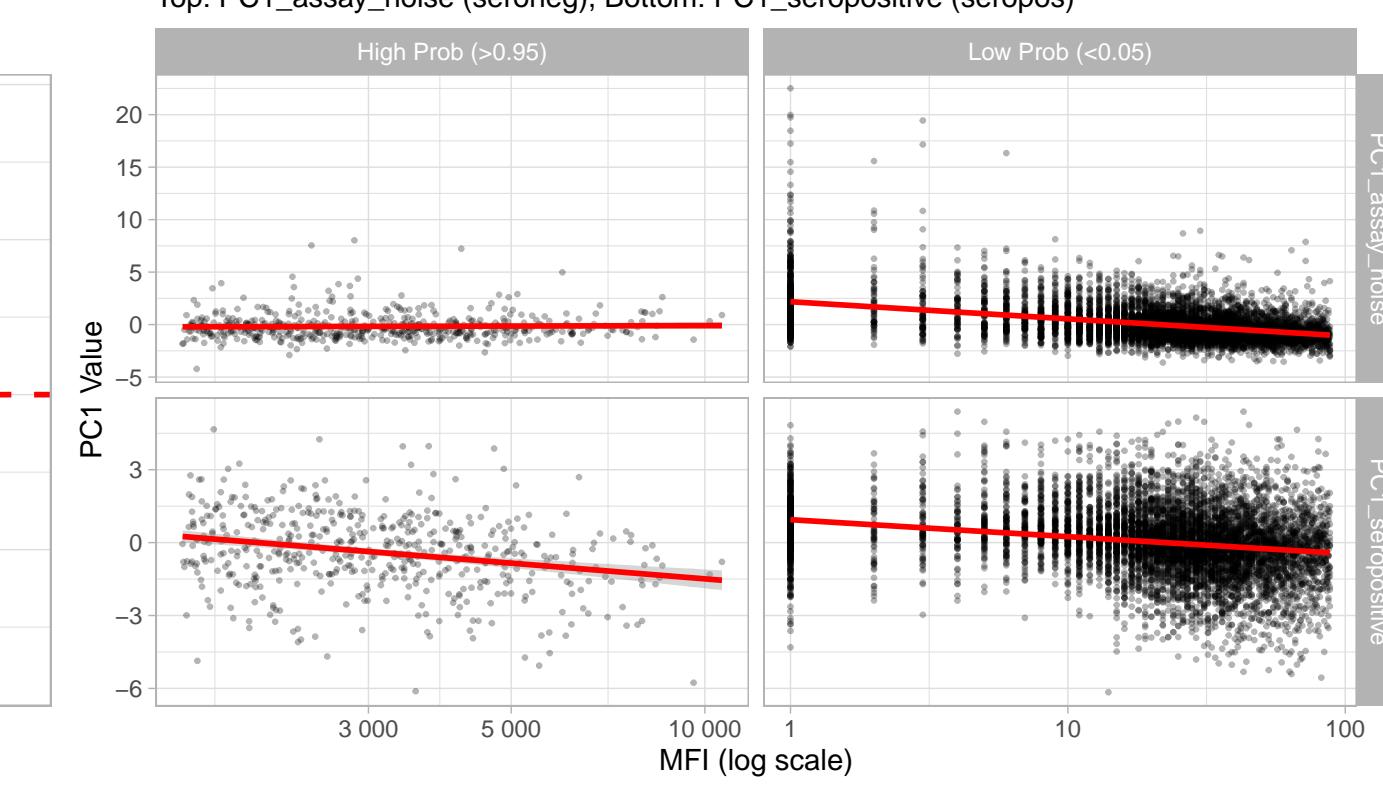
Hard vs Soft Classification: hsv2

Red line = 50% soft threshold, Blue line = hard threshold



PC1 Components vs IgG Level: hsv2

Top: PC1\_assay\_noise (seroneg), Bottom: PC1\_seropositive (seropos)

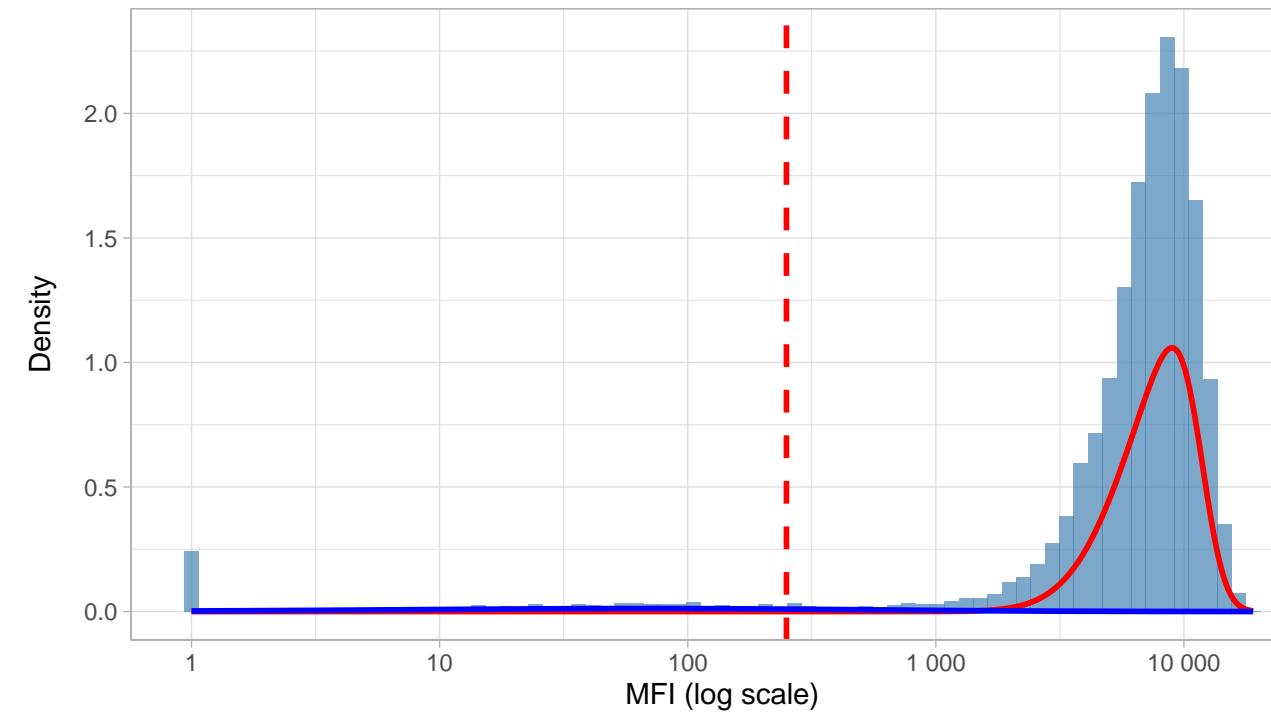


# Diagnostics: ebv\_vca

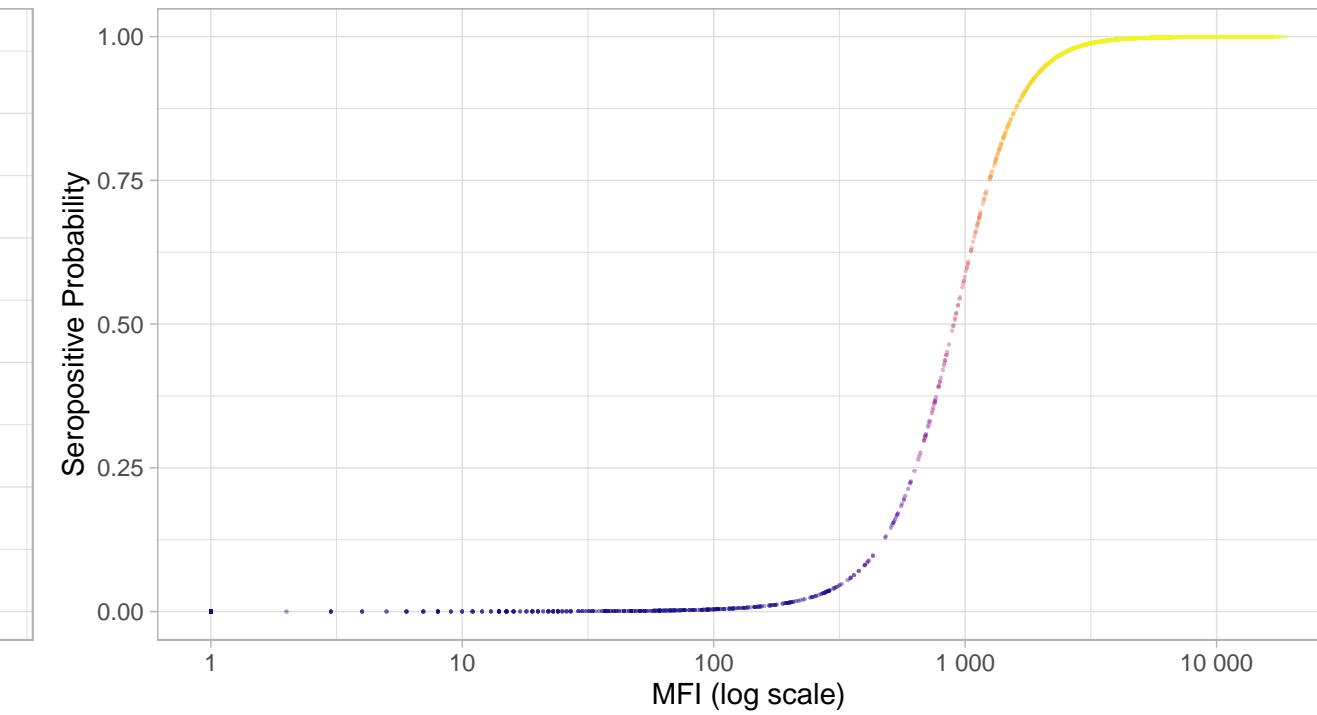
N=9424 | >0.95=8641 | <0.05=502 | Ambig=281

Original MFI Distribution: ebv\_vca

Hard cutoff threshold = 250

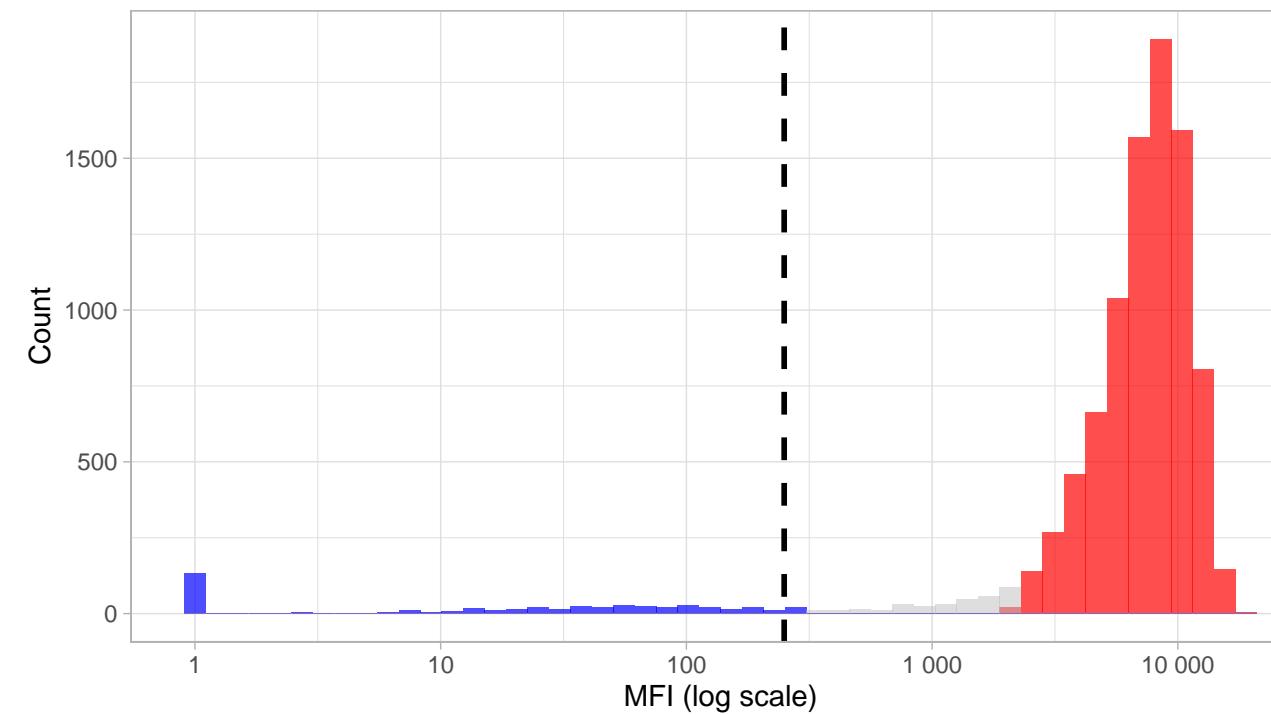


## IgG vs Seropositive Probability: ebv\_vca



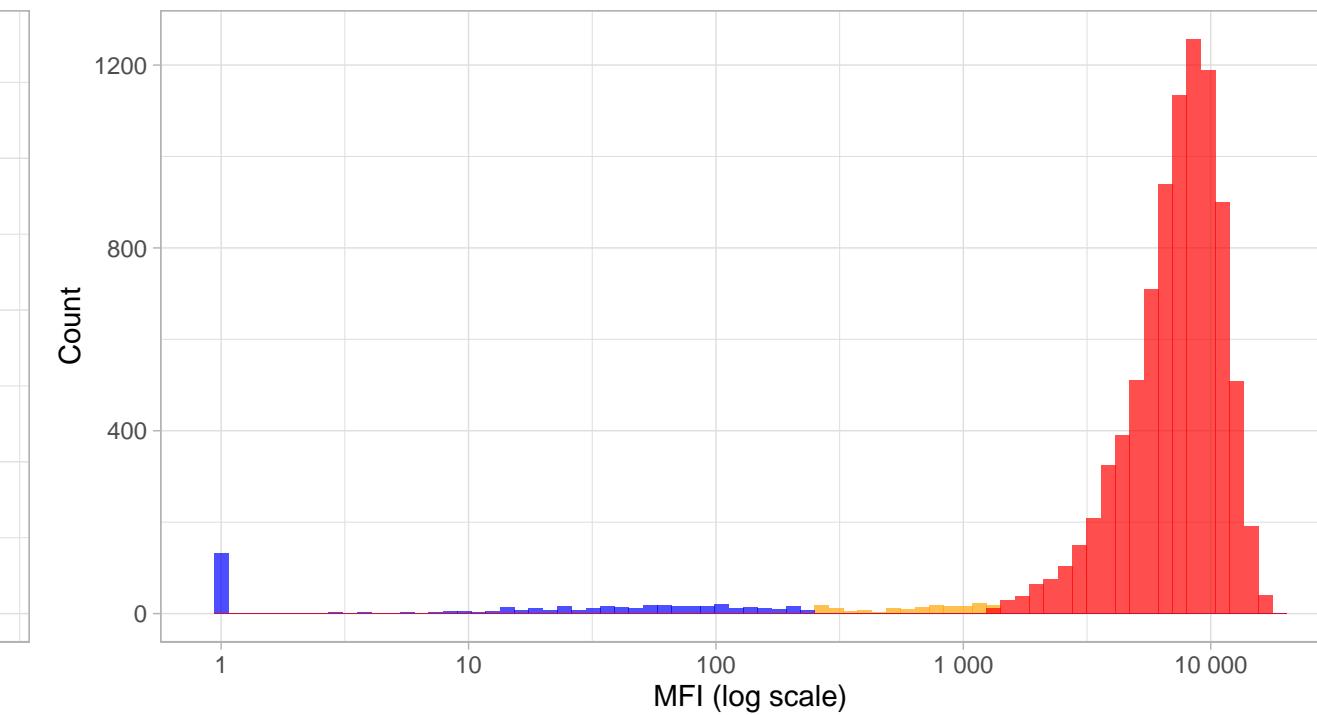
## High-Confidence Seropositive Distribution: ebv\_vca

Prob threshold = 0.96



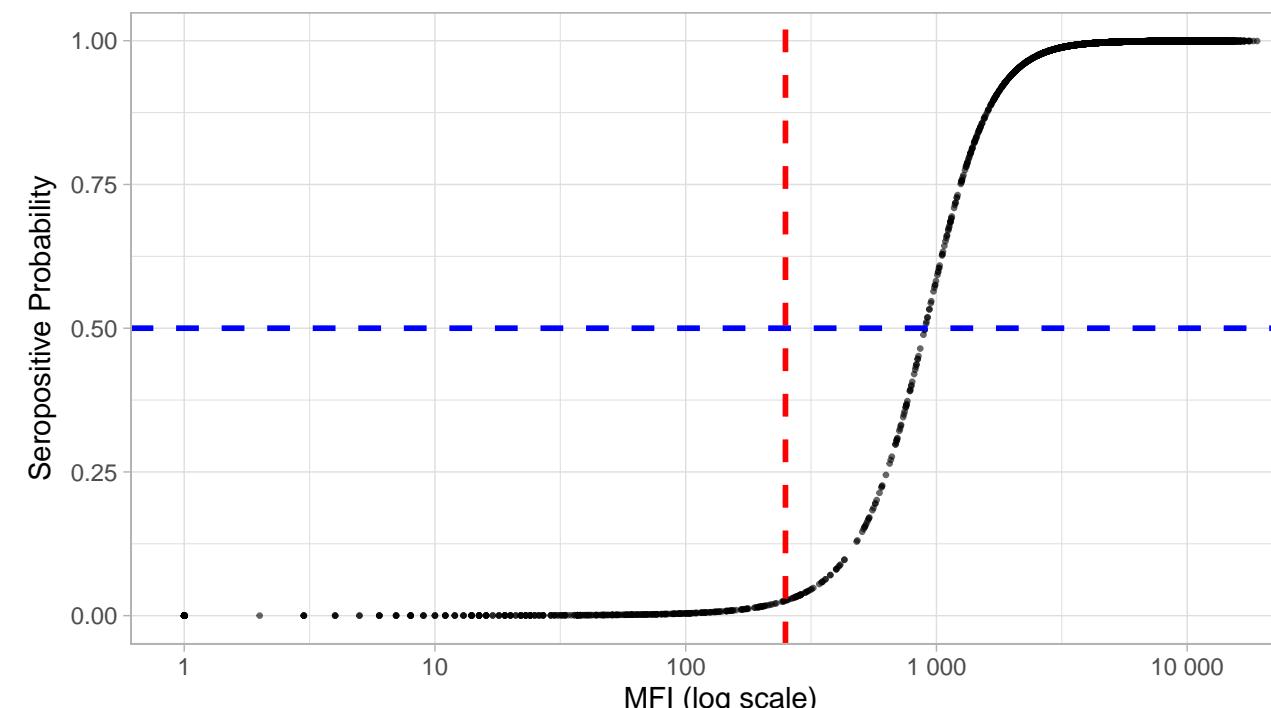
## Phenotype Distribution by Classification: ebv\_vca

Comparing hard vs soft classifications



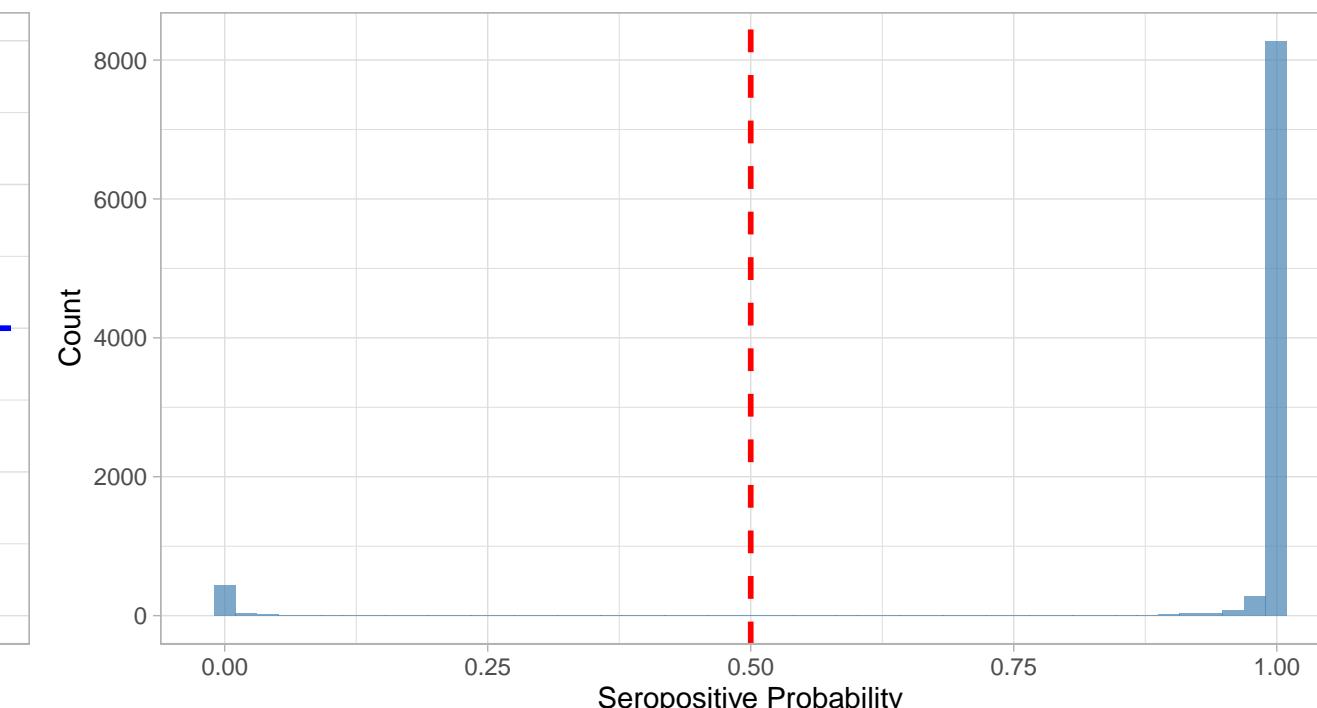
## IgG Level vs Seropositive Probability: ebv\_vca

Red line = hard threshold, Blue line = 50% probability



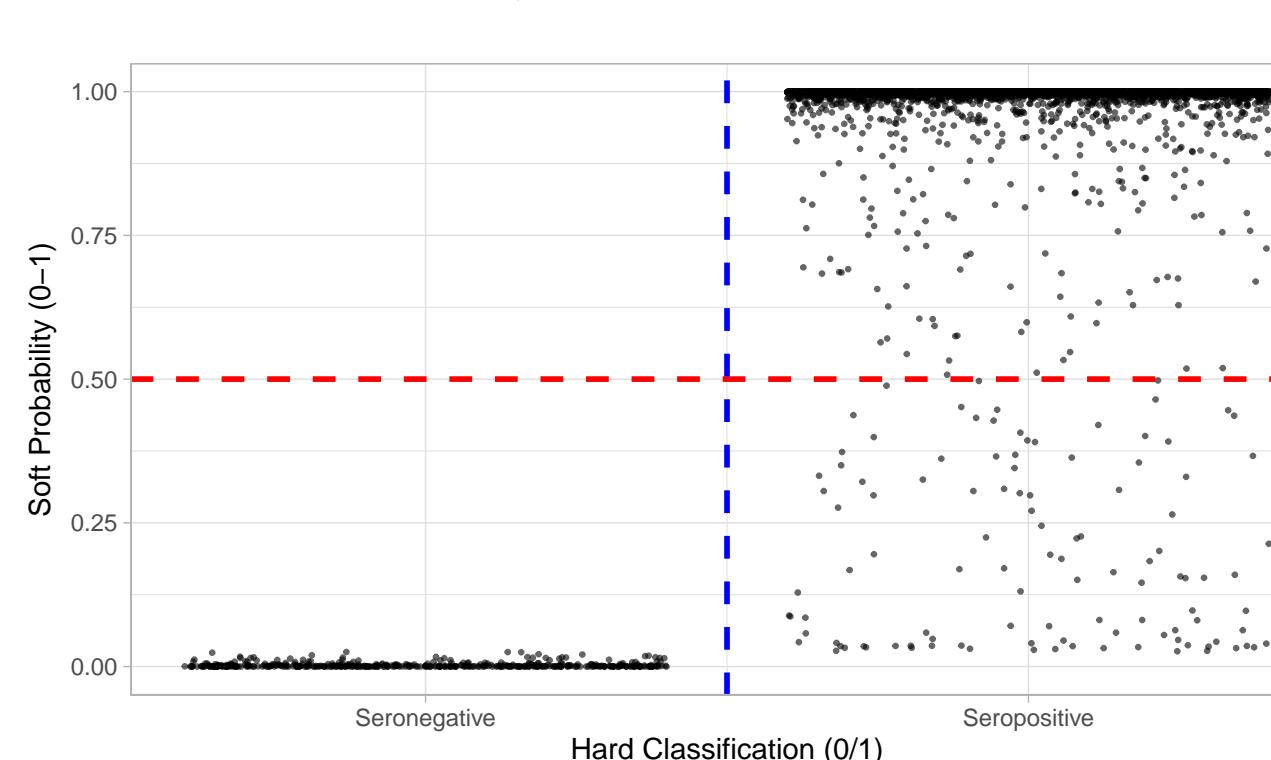
## Distribution of Seropositive Probabilities: ebv\_vca

Red line = 50% threshold



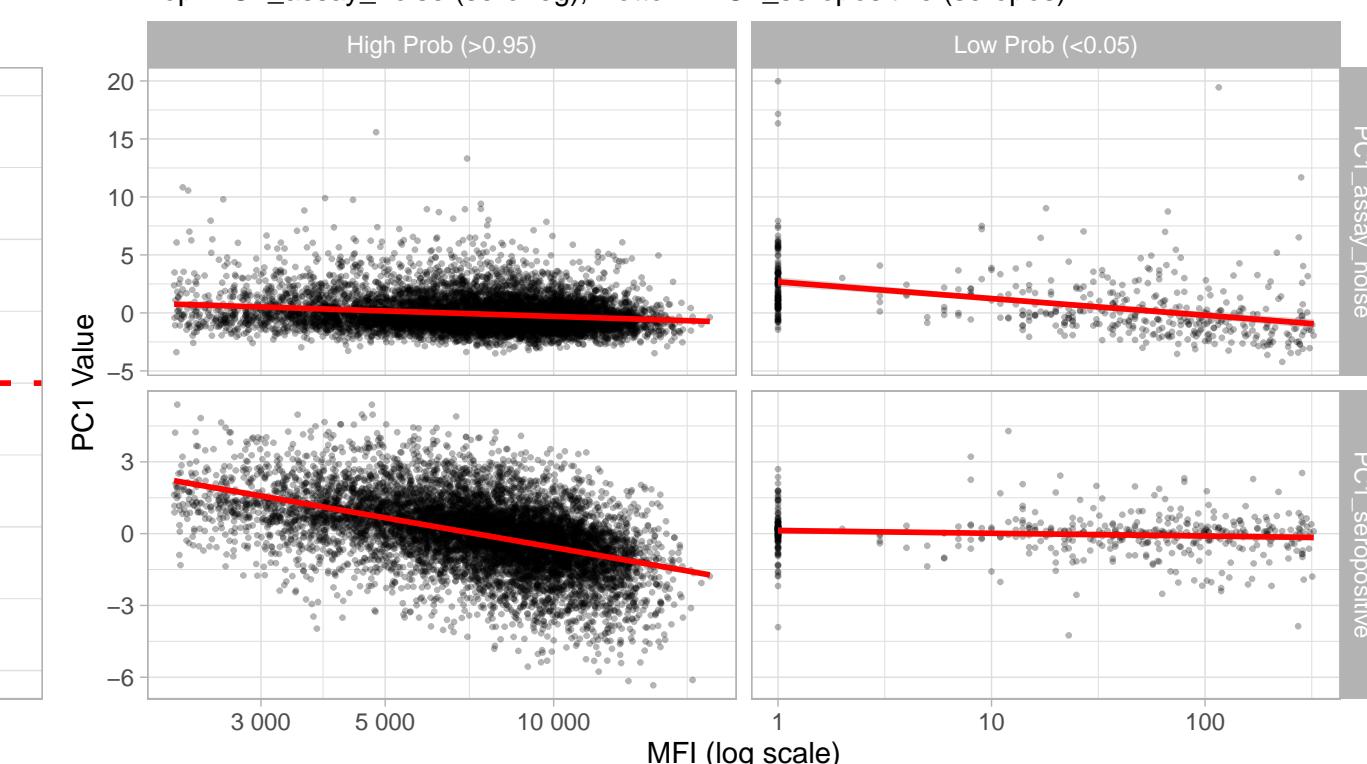
## Hard vs Soft Classification: ebv\_vca

Red line = 50% soft threshold, Blue line = hard threshold



## PC1 Components vs IgG Level: ebv\_vca

Top: PC1\_assay\_noise (seroneg), Bottom: PC1\_seropositive (seropos)

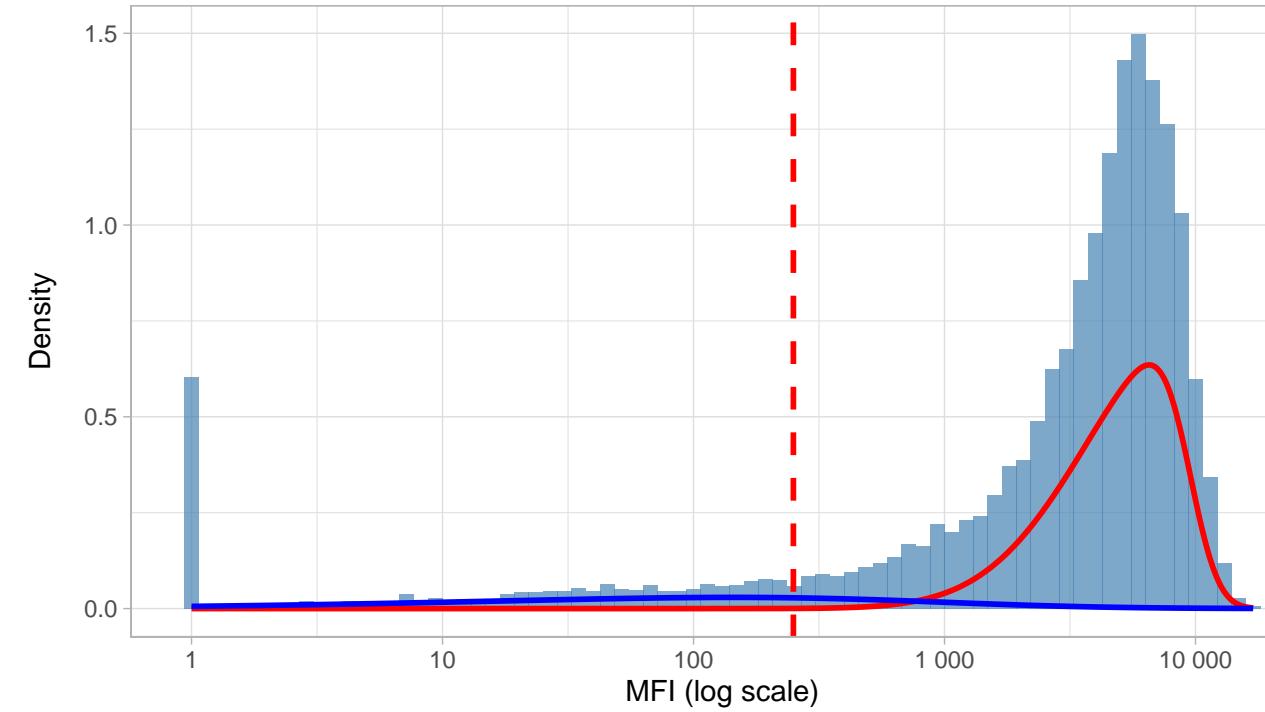


# Diagnostics: ebv\_ebna1

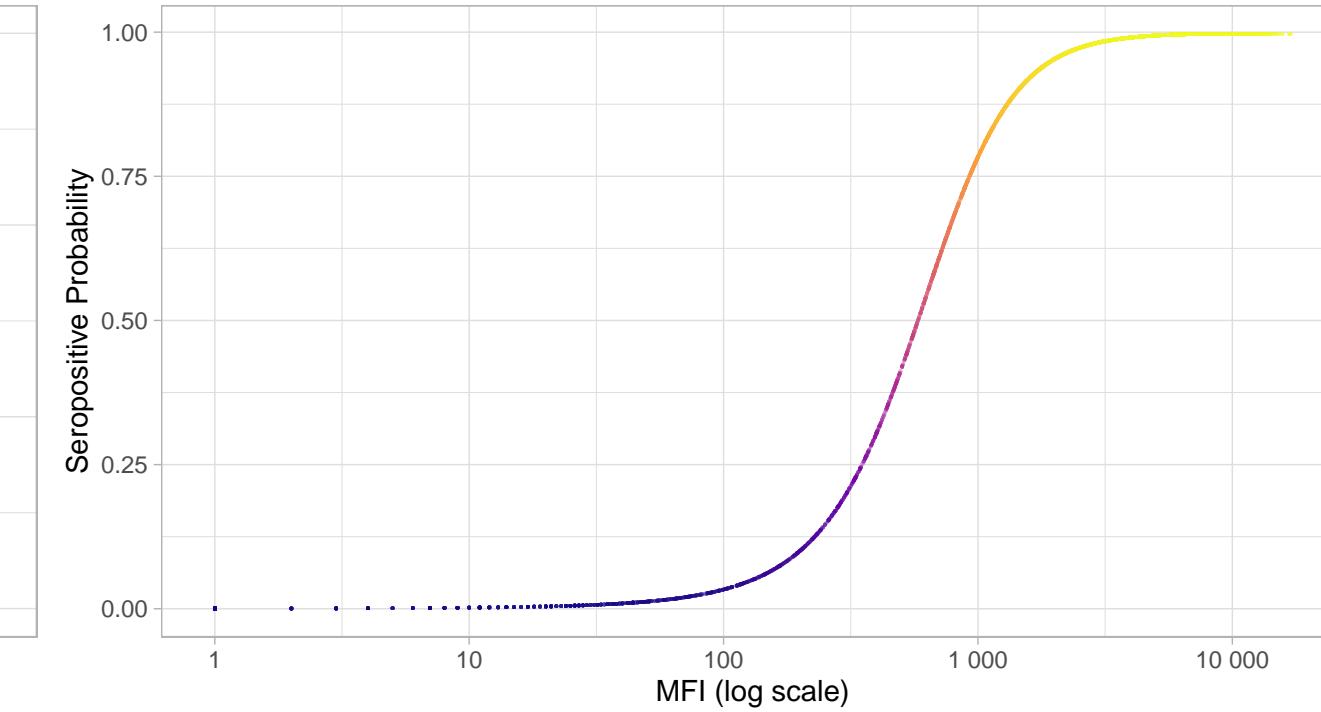
N=9424 | >0.95=6946 | <0.05=864 | Ambig=1614

Original MFI Distribution: ebv\_ebna1

Hard cutoff threshold = 250

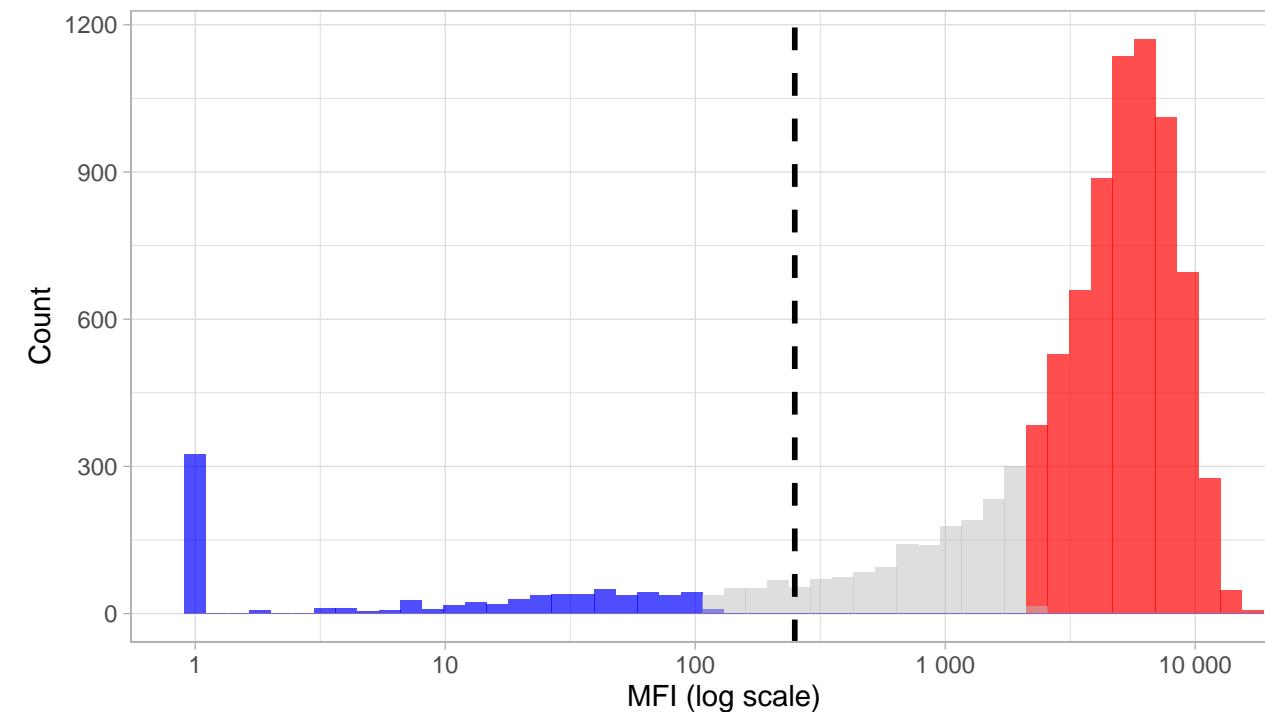


IgG vs Seropositive Probability: ebv\_ebna1



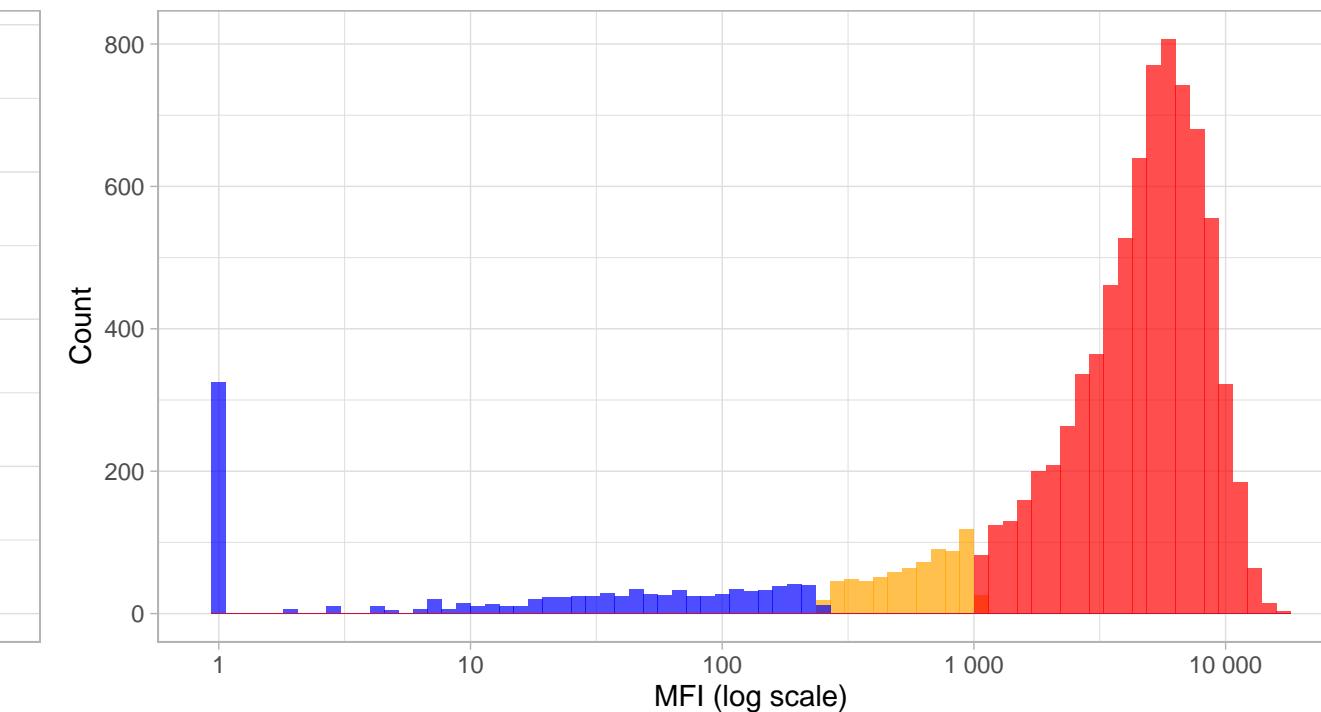
High-Confidence Seropositive Distribution: ebv\_ebna1

Prob threshold = 0.96



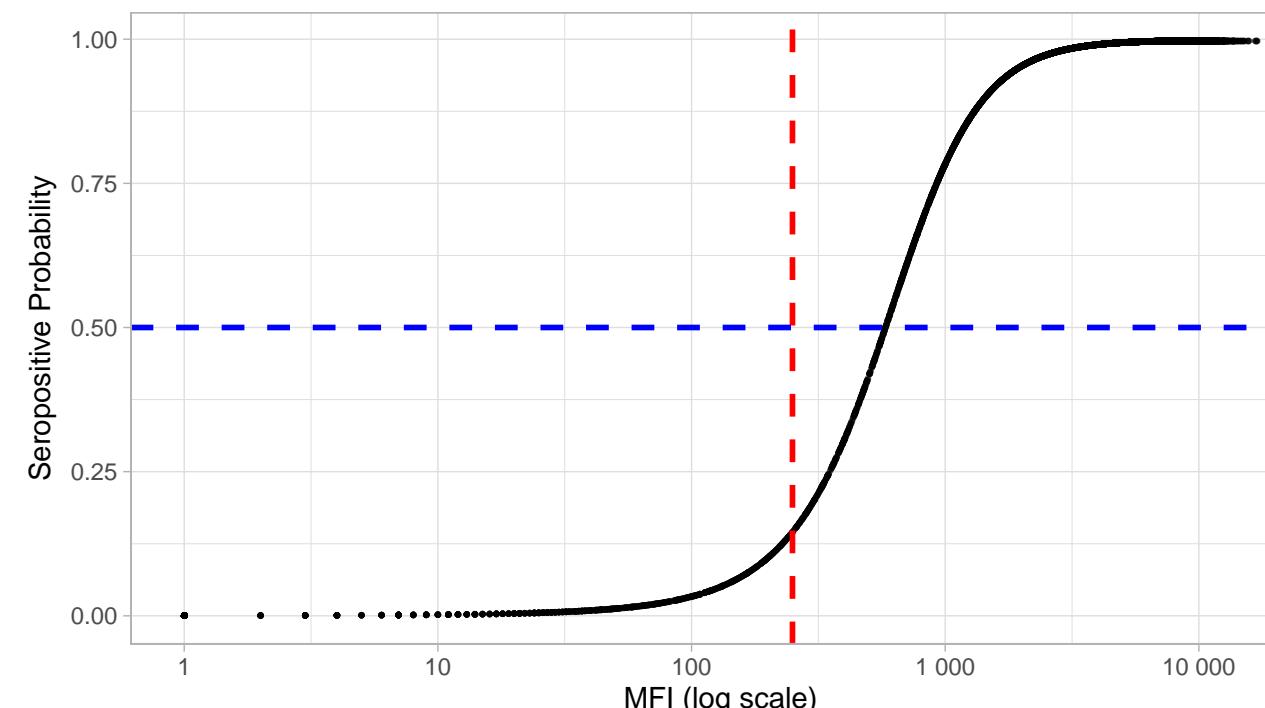
Phenotype Distribution by Classification: ebv\_ebna1

Comparing hard vs soft classifications



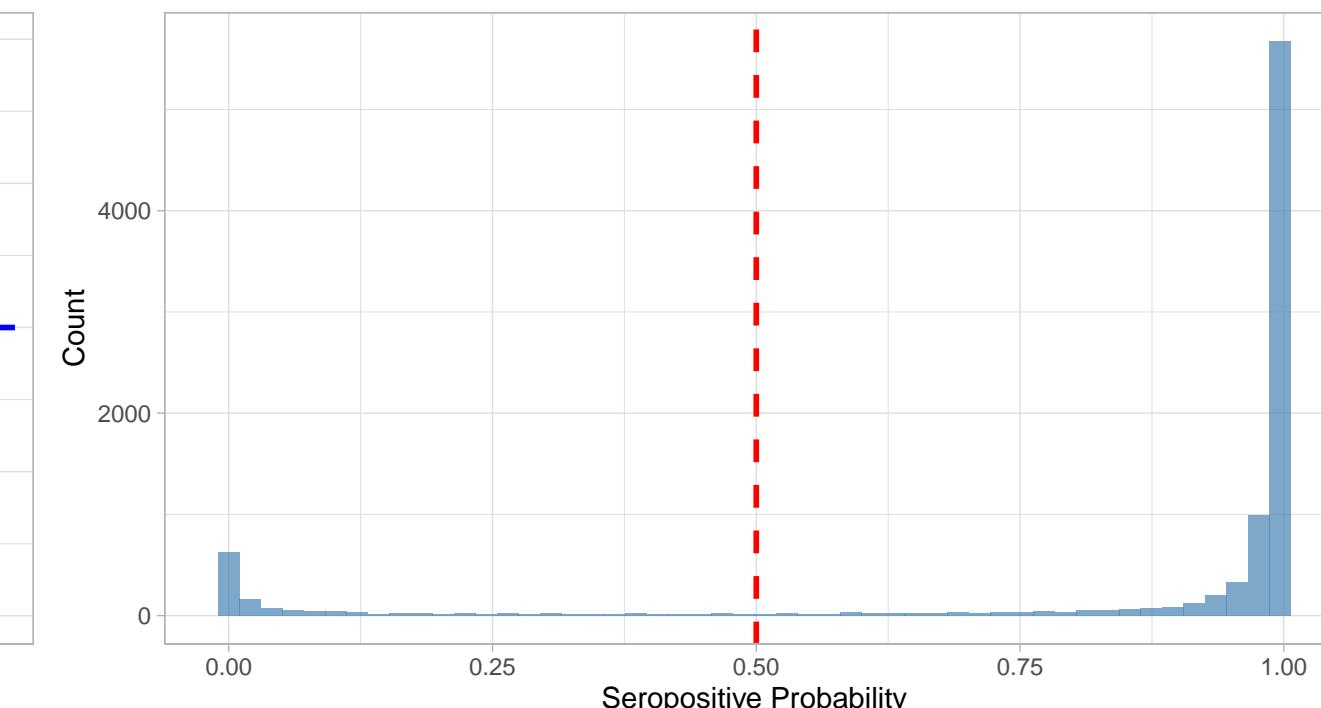
IgG Level vs Seropositive Probability: ebv\_ebna1

Red line = hard threshold, Blue line = 50% probability



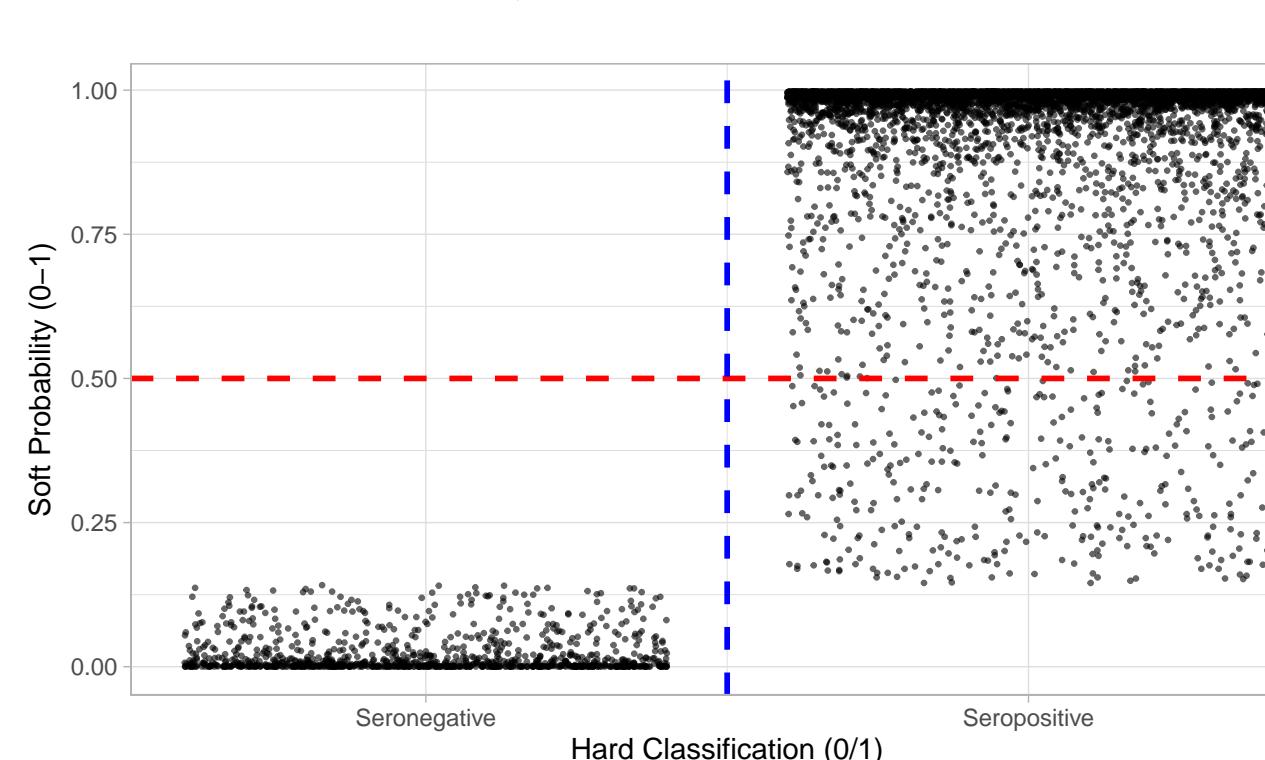
Distribution of Seropositive Probabilities: ebv\_ebna1

Red line = 50% threshold



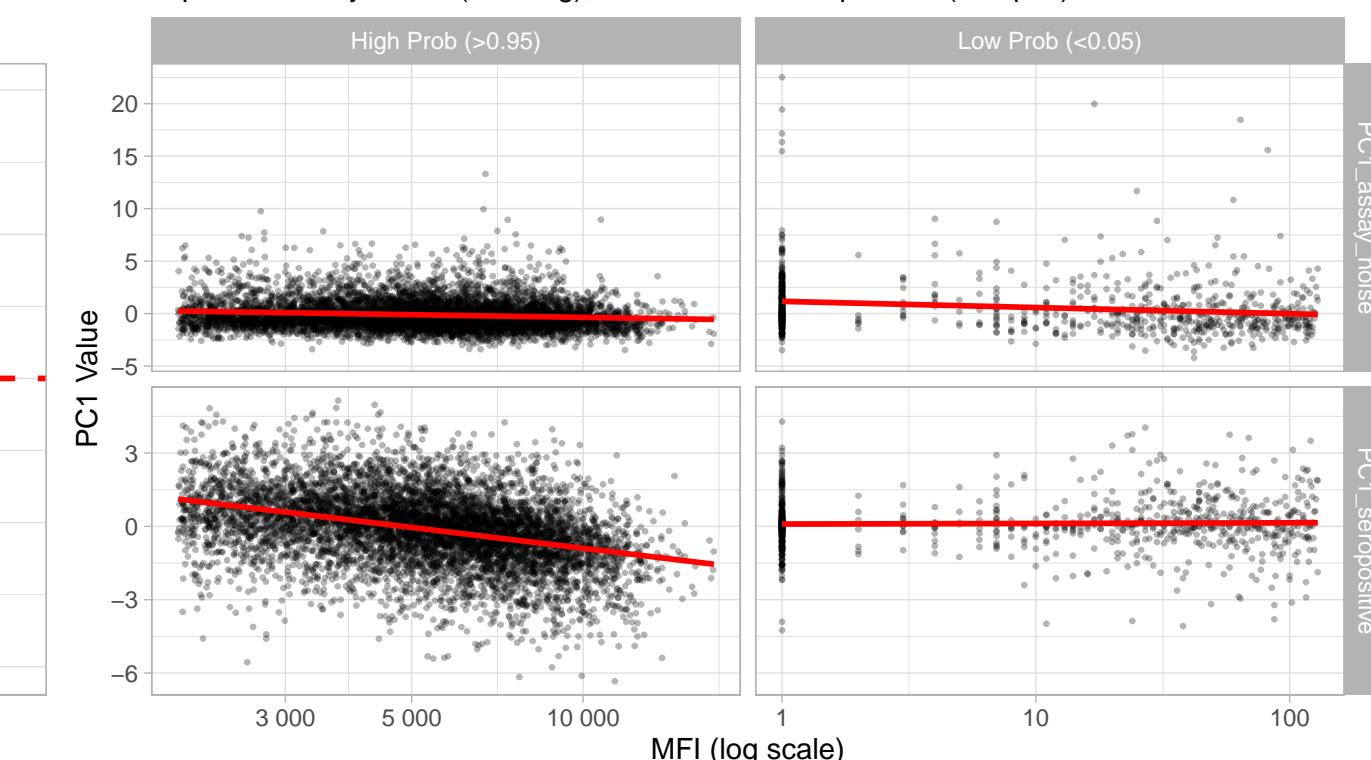
Hard vs Soft Classification: ebv\_ebna1

Red line = 50% soft threshold, Blue line = hard threshold



PC1 Components vs IgG Level: ebv\_ebna1

Top: PC1\_assay\_noise (seroneg), Bottom: PC1\_seropositive (seropos)

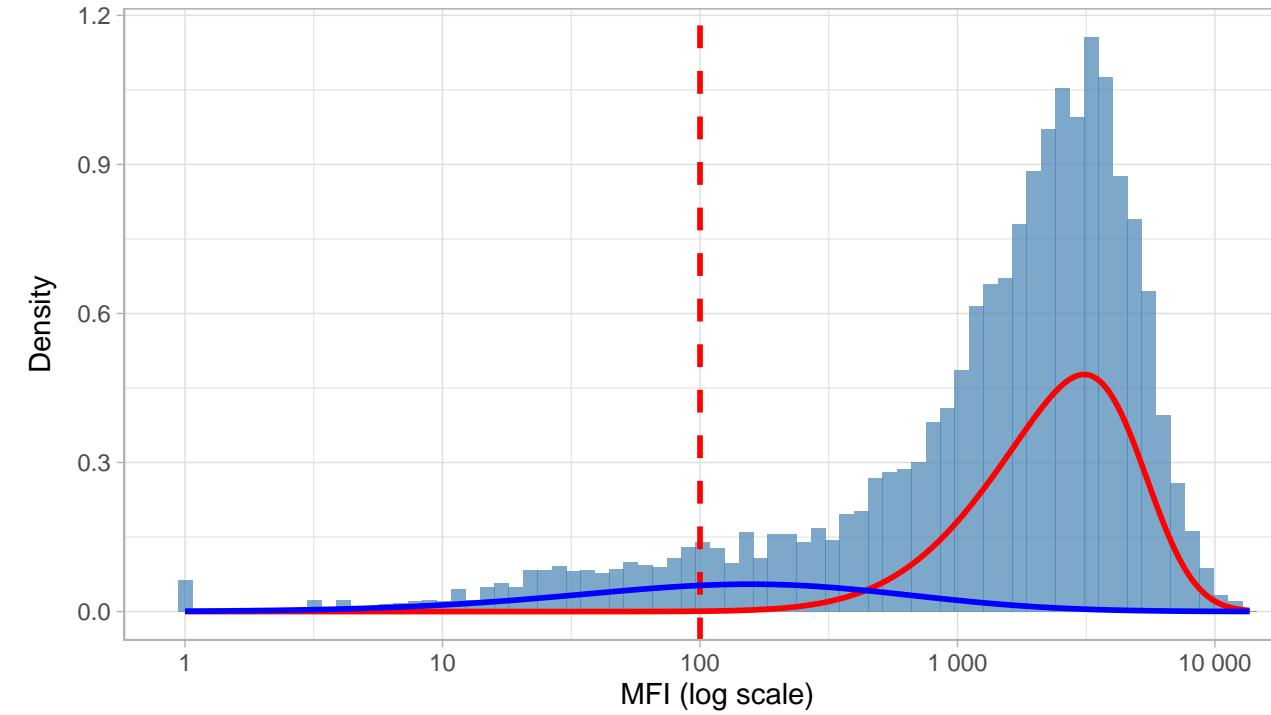


# Diagnostics: ebv\_zebra

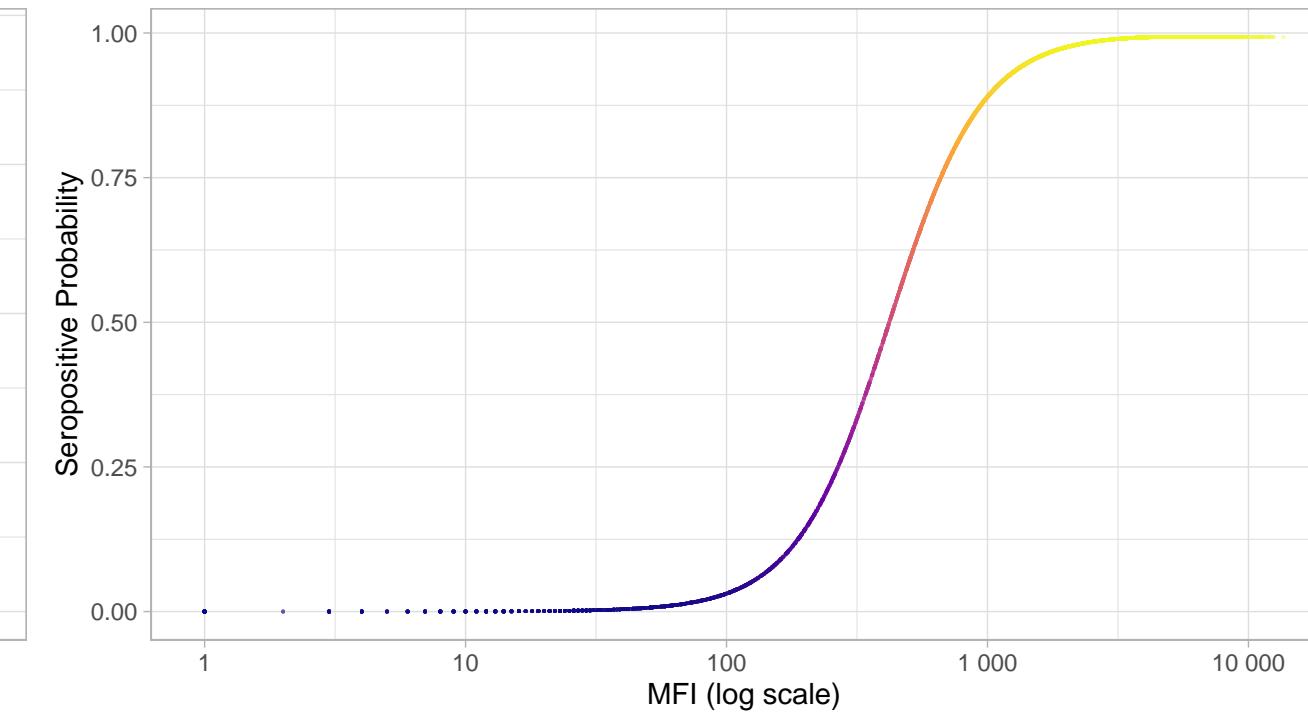
N=9424 | >0.95=5705 | <0.05=950 | Ambig=2769

Original MFI Distribution: ebv\_zebra

Hard cutoff threshold = 100

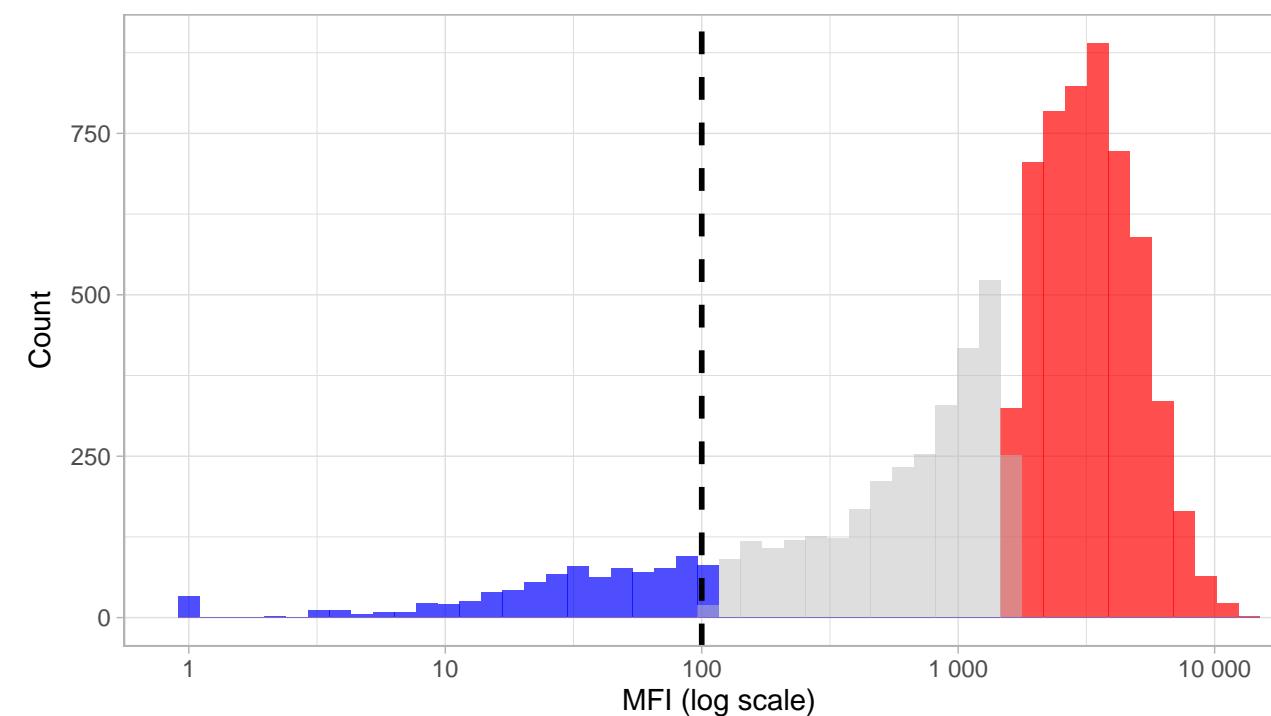


IgG vs Seropositive Probability: ebv\_zebra



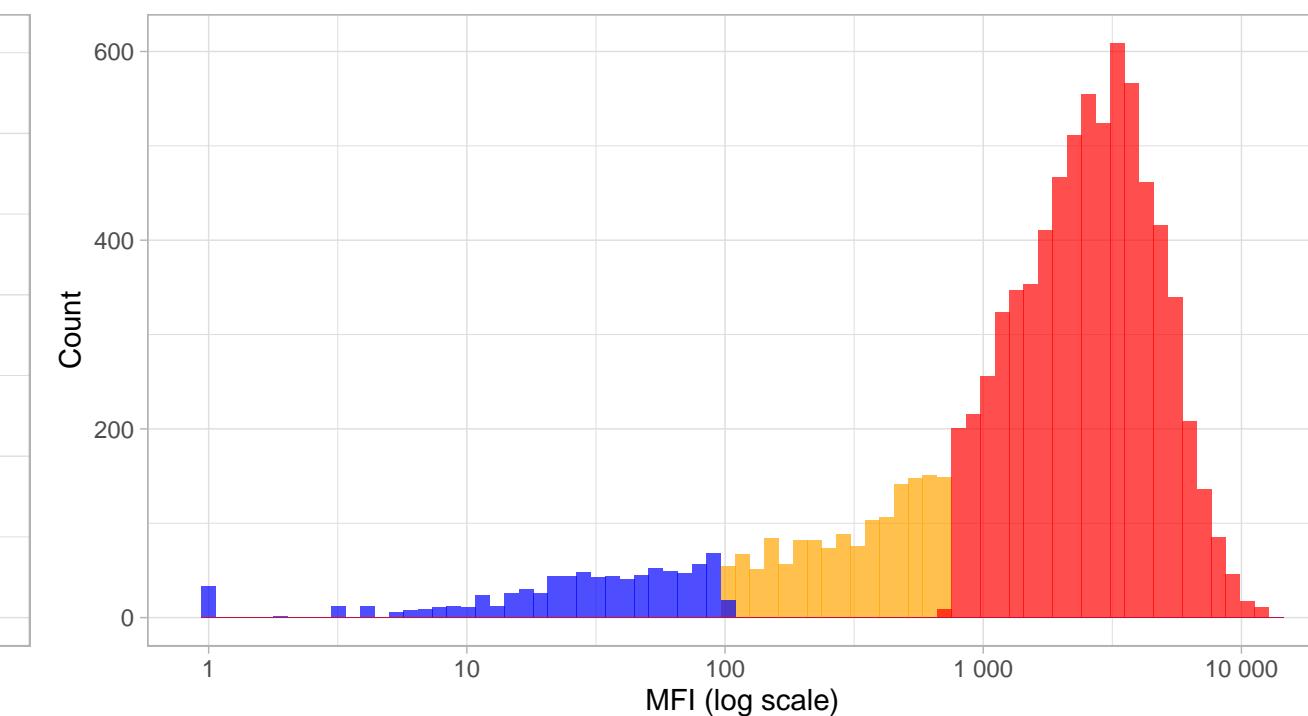
High-Confidence Seropositive Distribution: ebv\_zebra

Prob threshold = 0.96



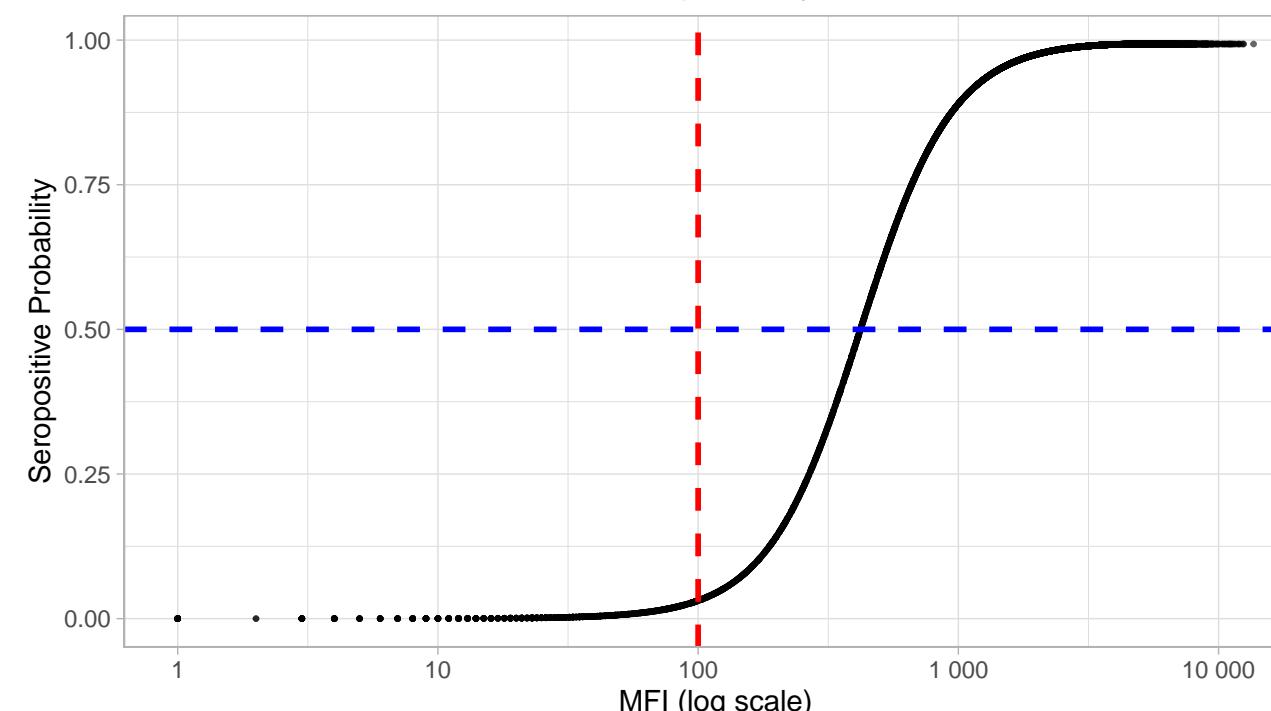
Phenotype Distribution by Classification: ebv\_zebra

Comparing hard vs soft classifications



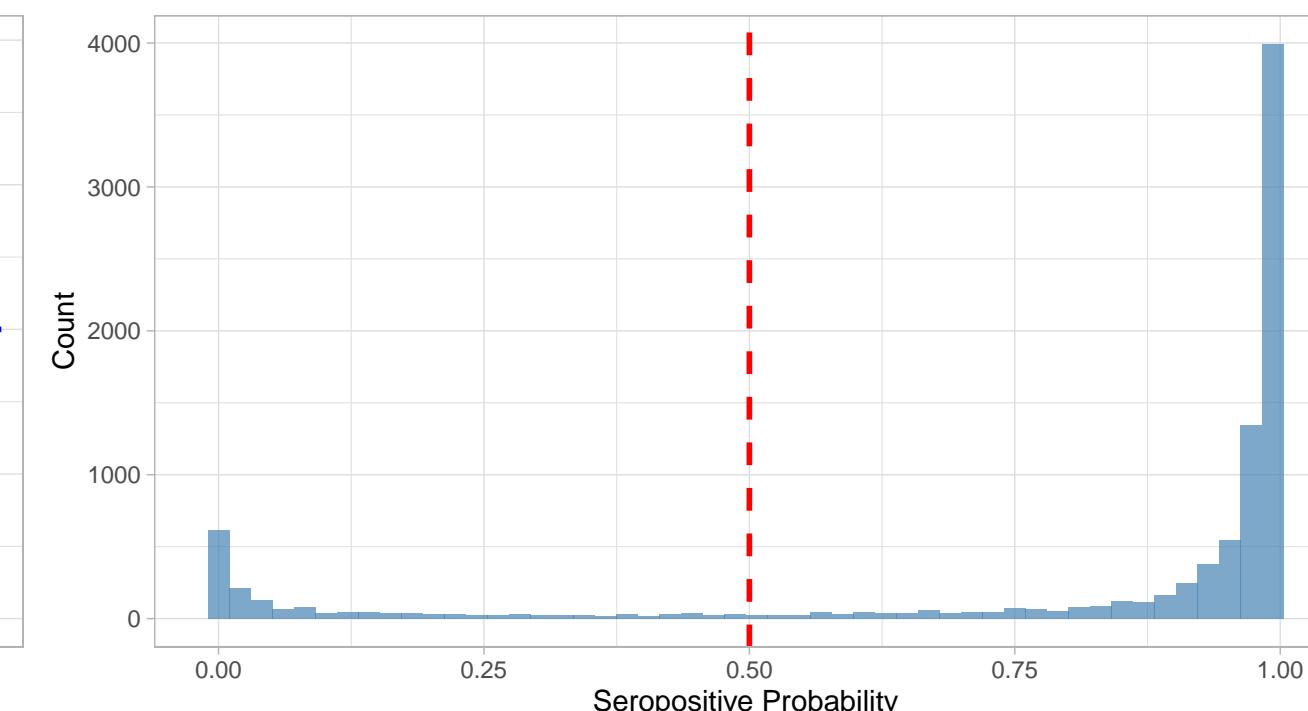
IgG Level vs Seropositive Probability: ebv\_zebra

Red line = hard threshold, Blue line = 50% probability



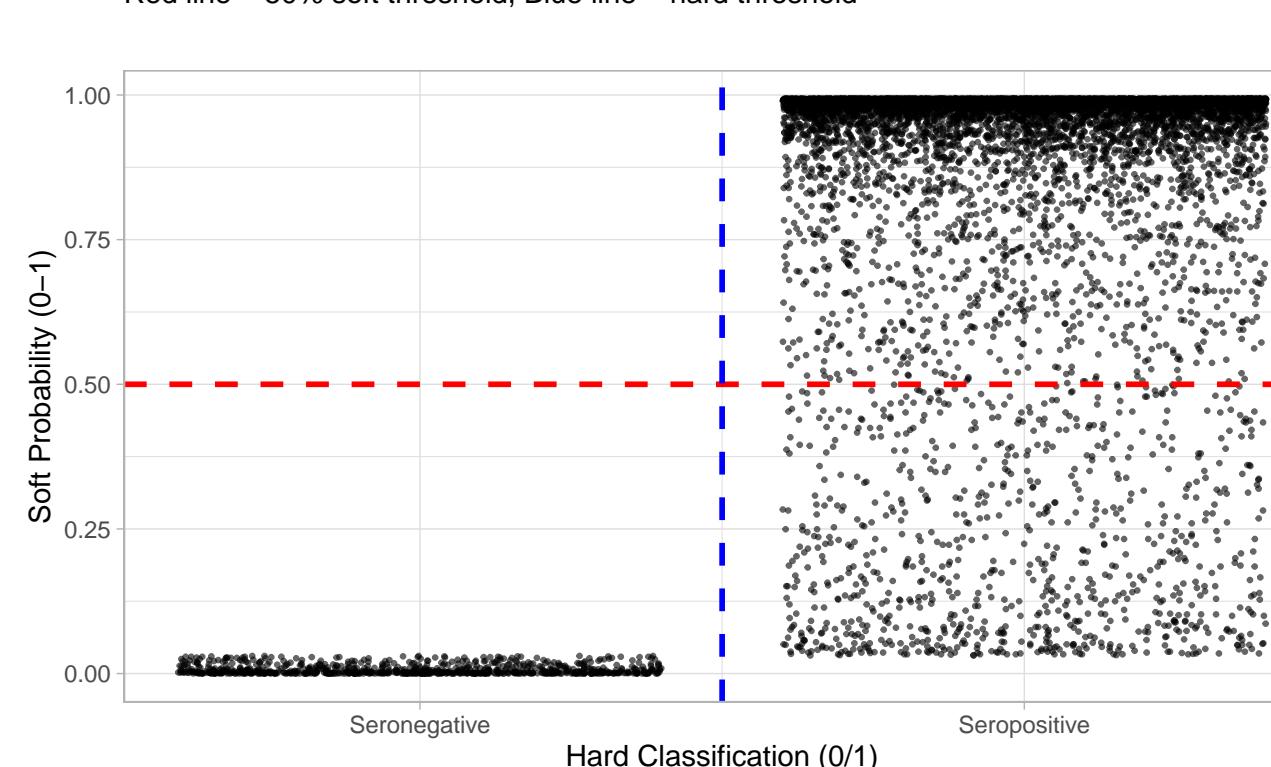
Distribution of Seropositive Probabilities: ebv\_zebra

Red line = 50% threshold



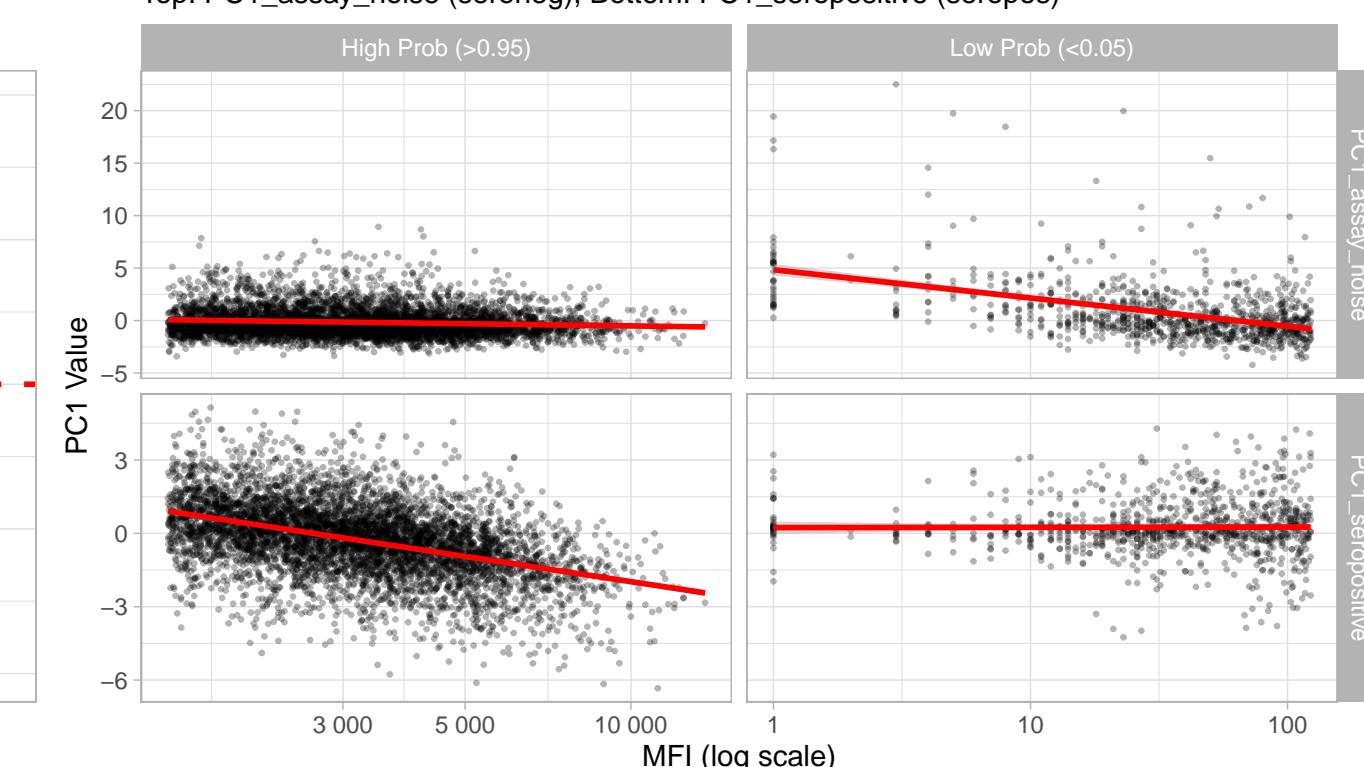
Hard vs Soft Classification: ebv\_zebra

Red line = 50% soft threshold, Blue line = hard threshold



PC1 Components vs IgG Level: ebv\_zebra

Top: PC1\_assay\_noise (seroneg), Bottom: PC1\_seropositive (seropos)

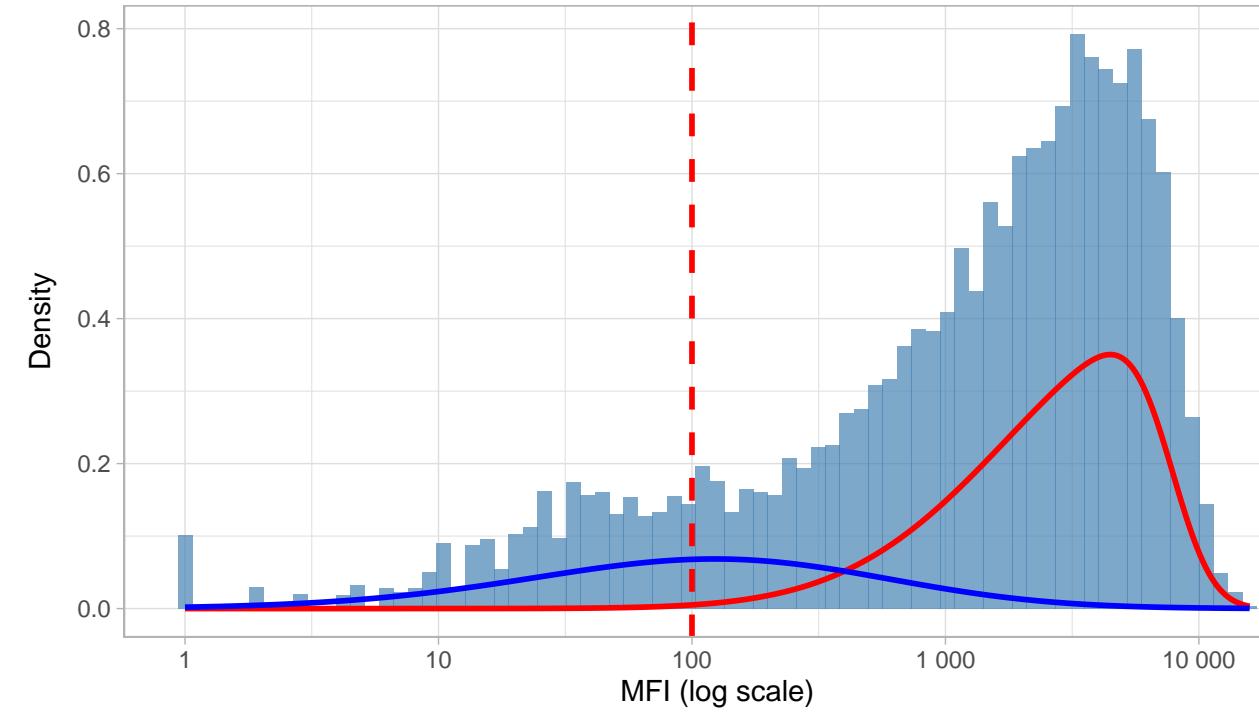


# Diagnostics: ebv\_ead

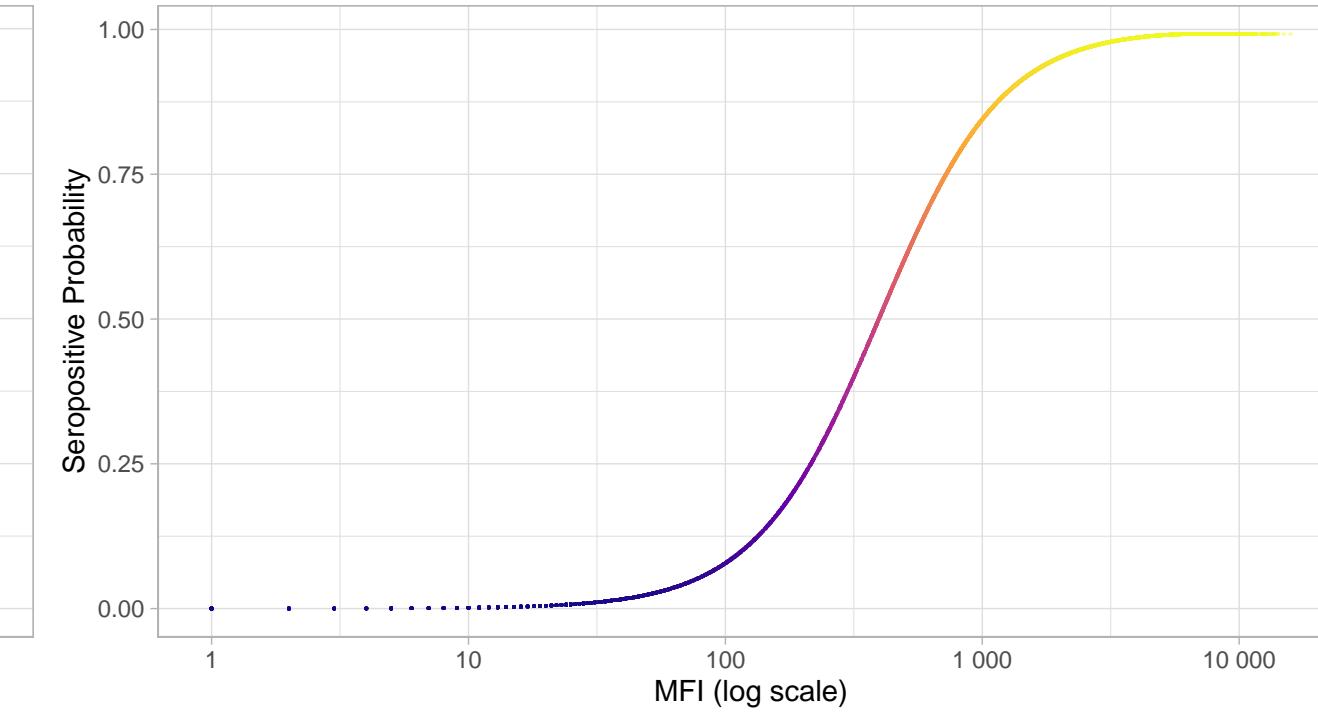
N=9424 | >0.95=4388 | <0.05=1148 | Ambig=3888

Original MFI Distribution: ebv\_ead

Hard cutoff threshold = 100

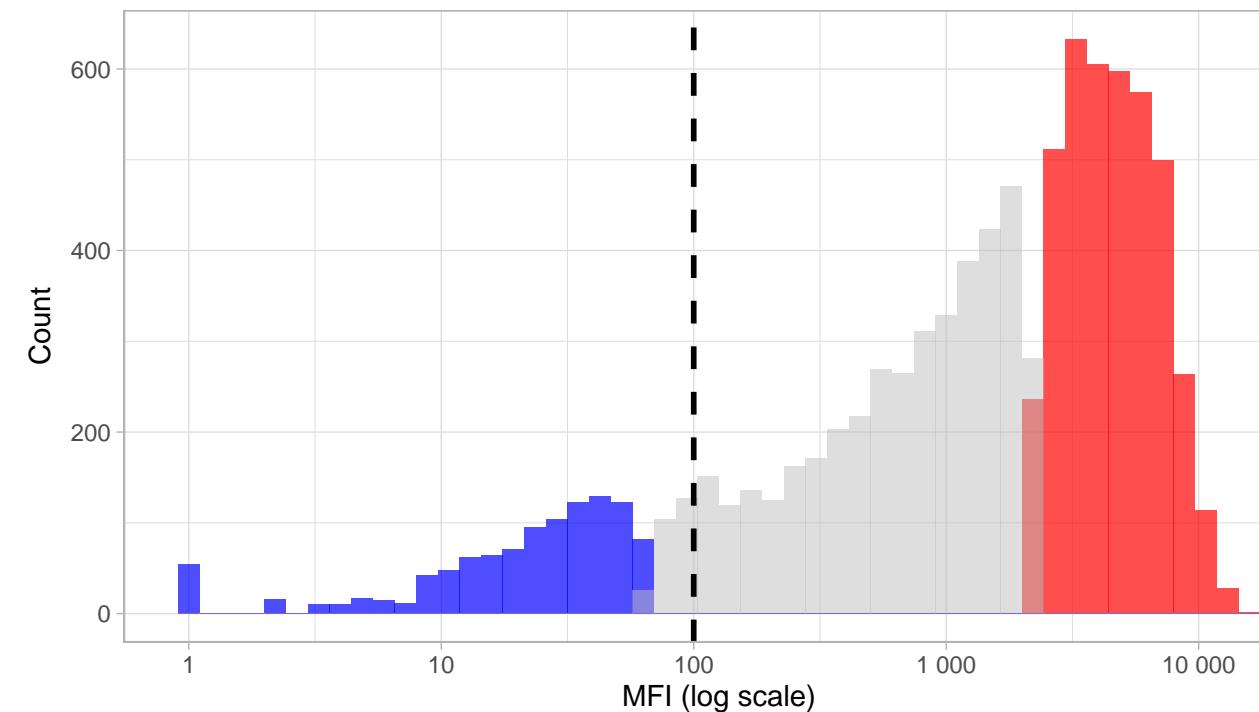


IgG vs Seropositive Probability: ebv\_ead



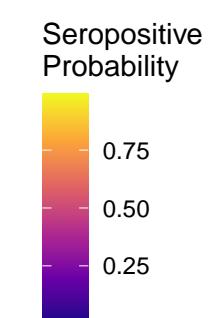
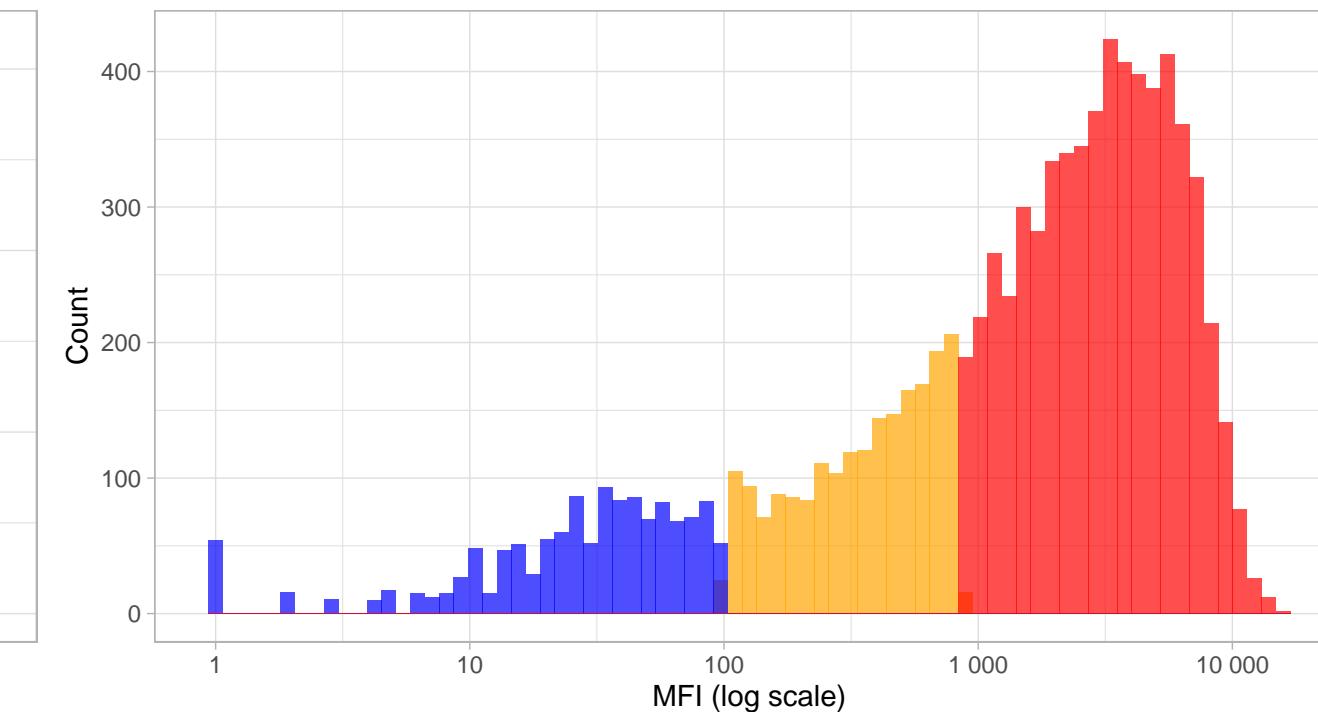
High-Confidence Seropositive Distribution: ebv\_ead

Prob threshold = 0.96



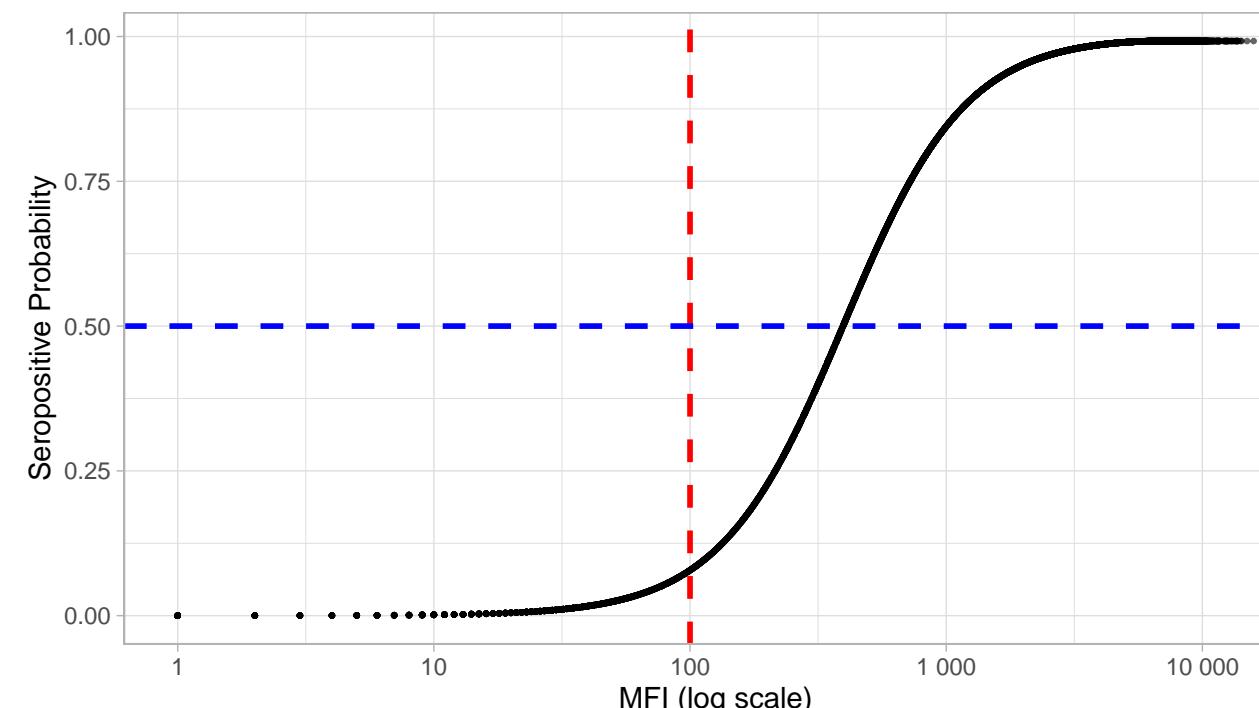
Phenotype Distribution by Classification: ebv\_ead

Comparing hard vs soft classifications



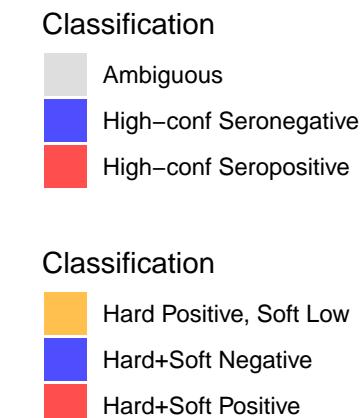
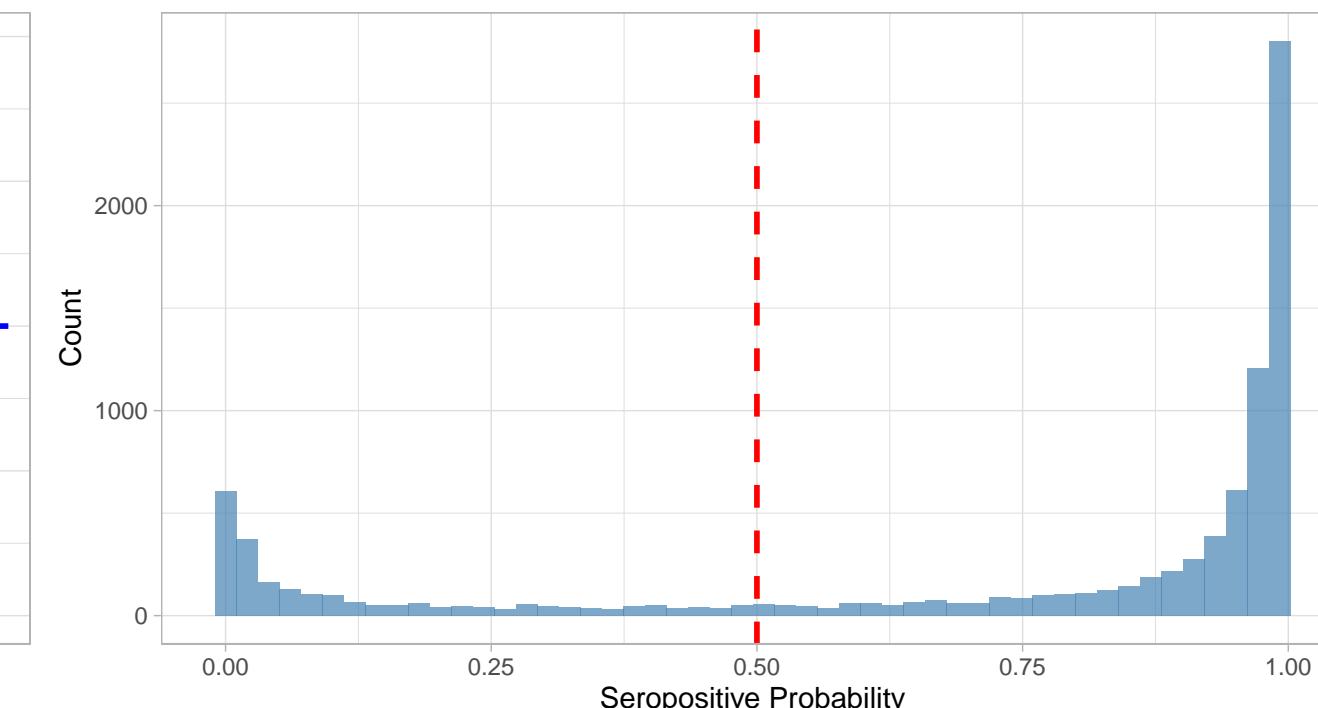
IgG Level vs Seropositive Probability: ebv\_ead

Red line = hard threshold, Blue line = 50% probability



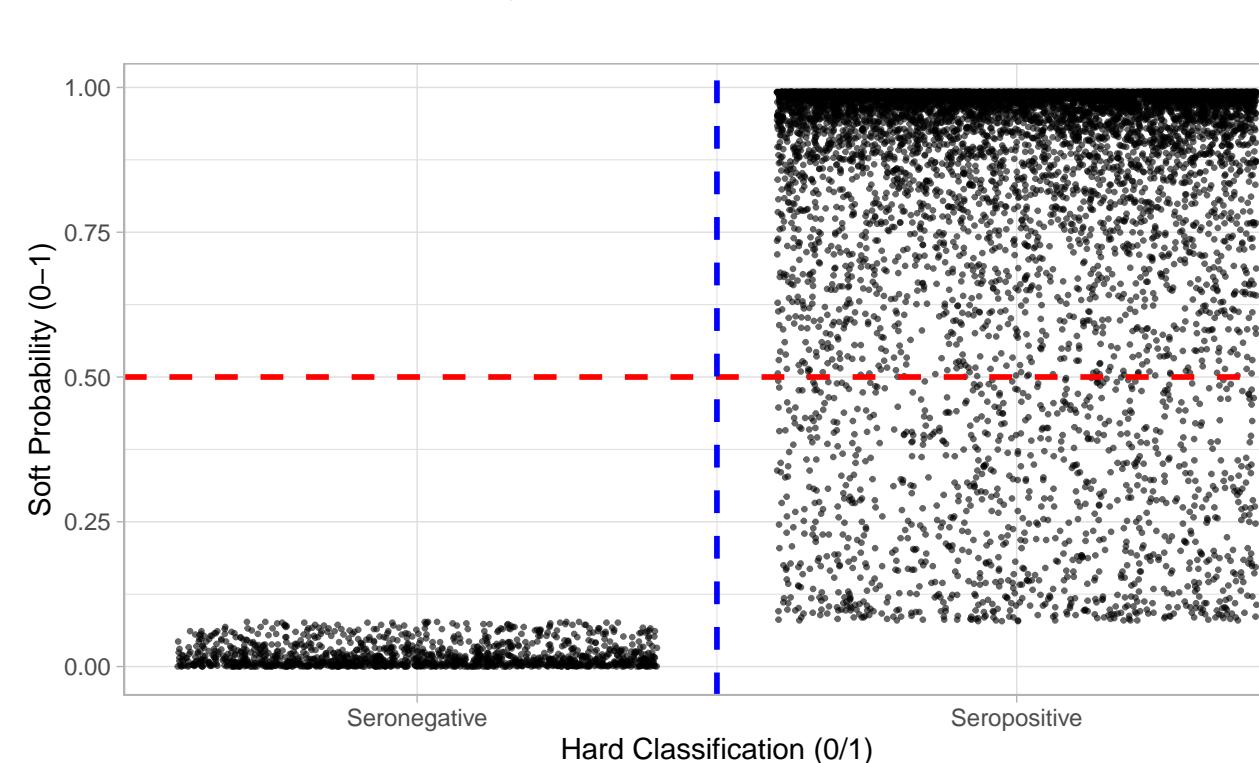
Distribution of Seropositive Probabilities: ebv\_ead

Red line = 50% threshold



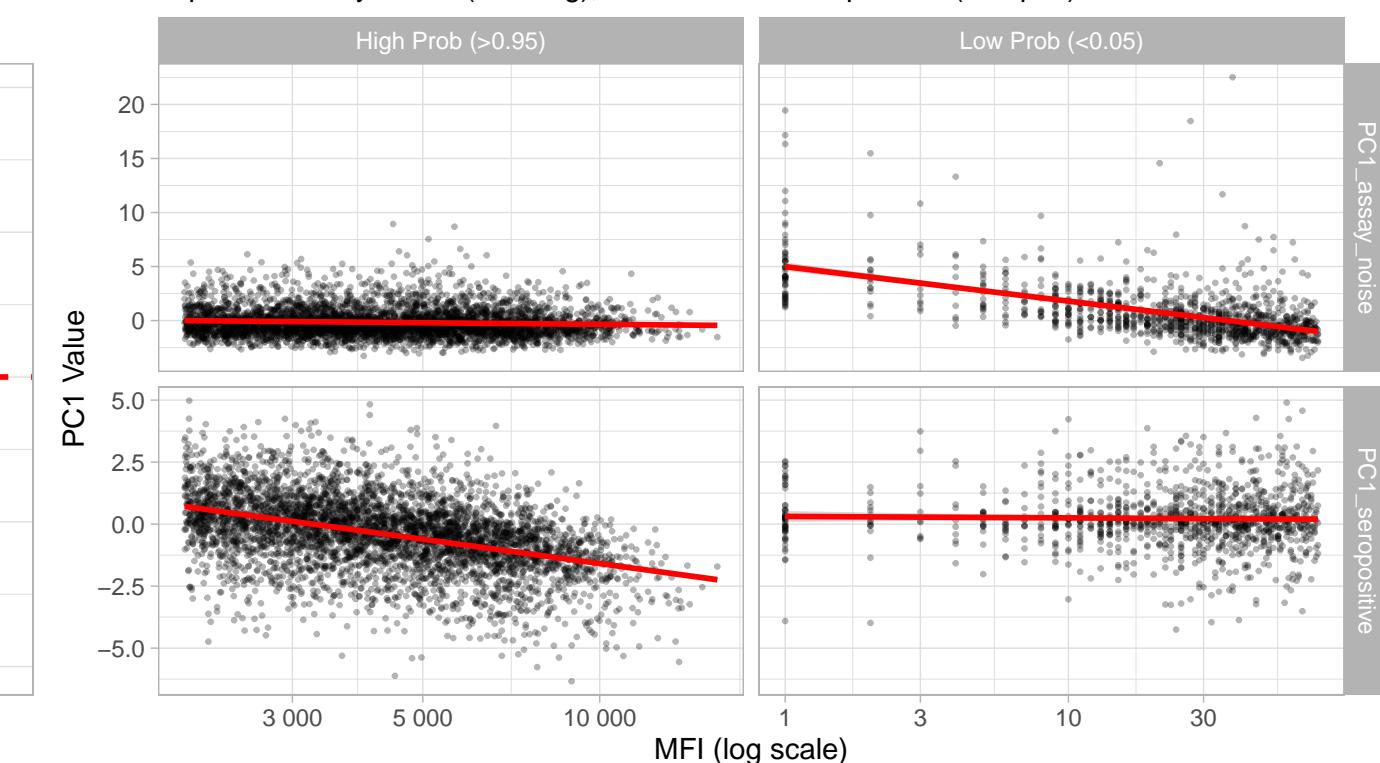
Hard vs Soft Classification: ebv\_ead

Red line = 50% soft threshold, Blue line = hard threshold



PC1 Components vs IgG Level: ebv\_ead

Top: PC1\_assay\_noise (seroneg), Bottom: PC1\_seropositive (seropos)

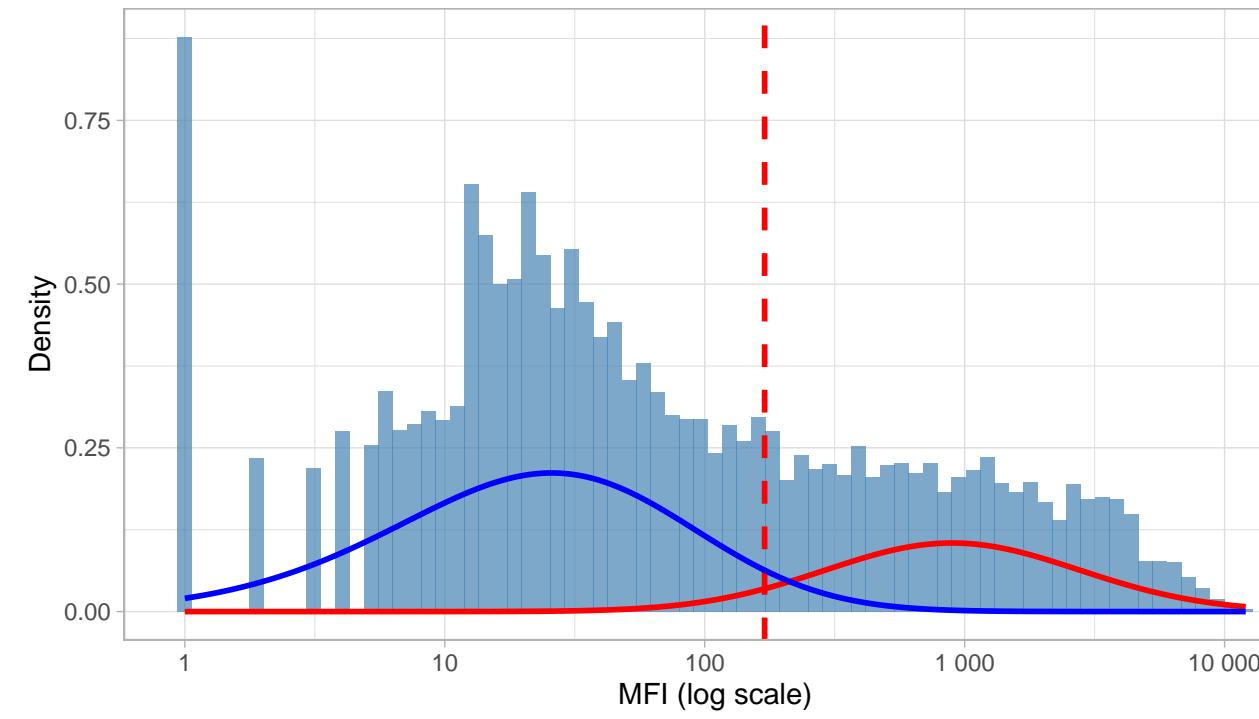


# Diagnostics: hp\_omp

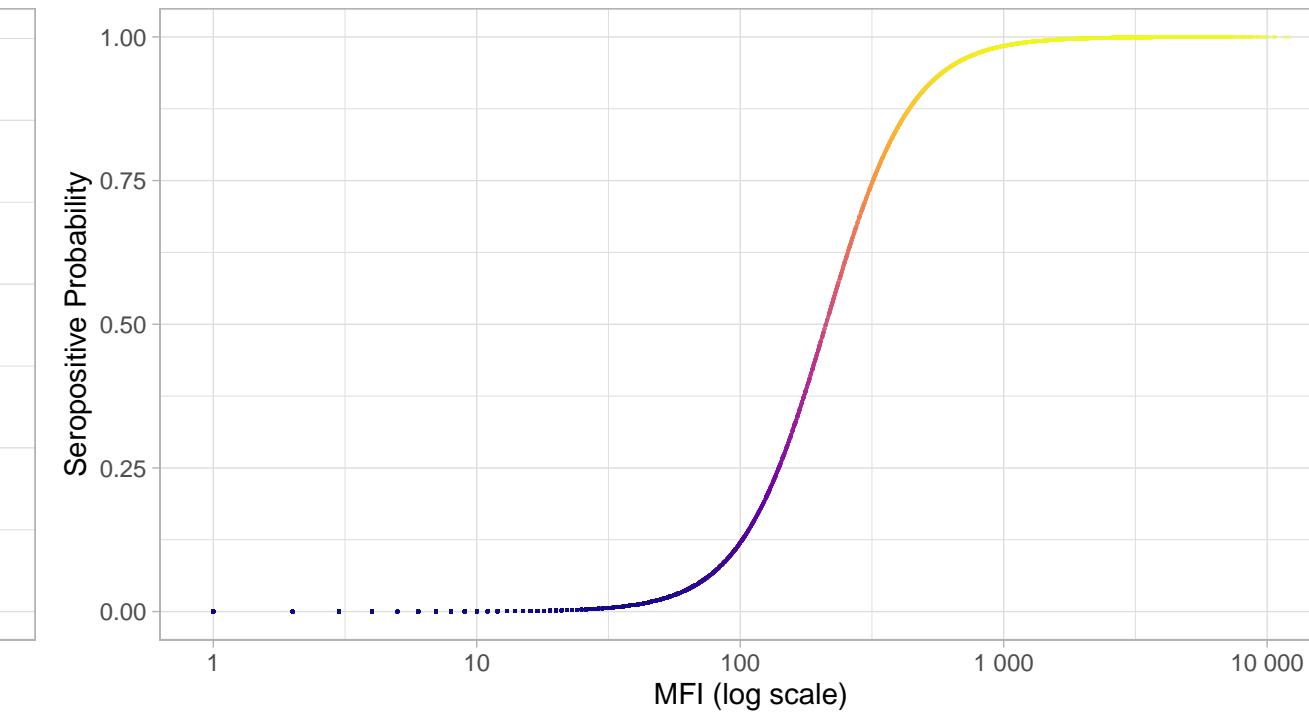
N=9424 | >0.95=1713 | <0.05=5447 | Ambig=2264

Original MFI Distribution: hp\_omp

Hard cutoff threshold = 170

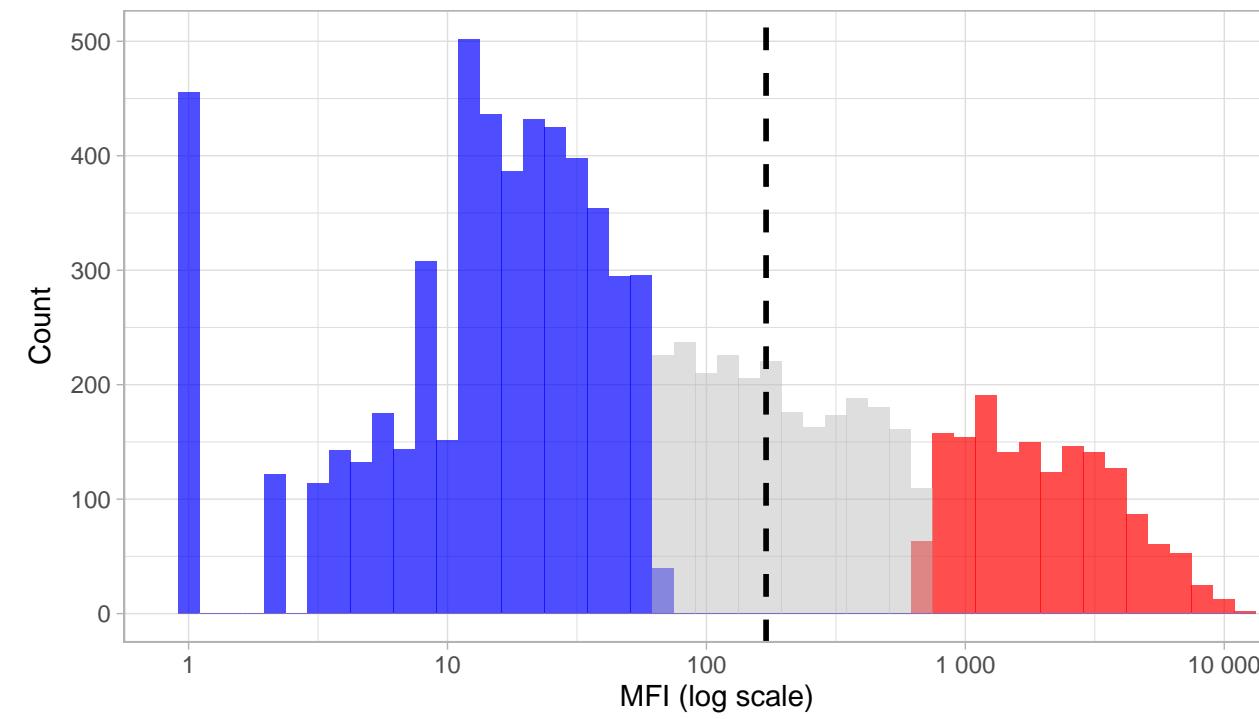


## IgG vs Seropositive Probability: hp\_omp



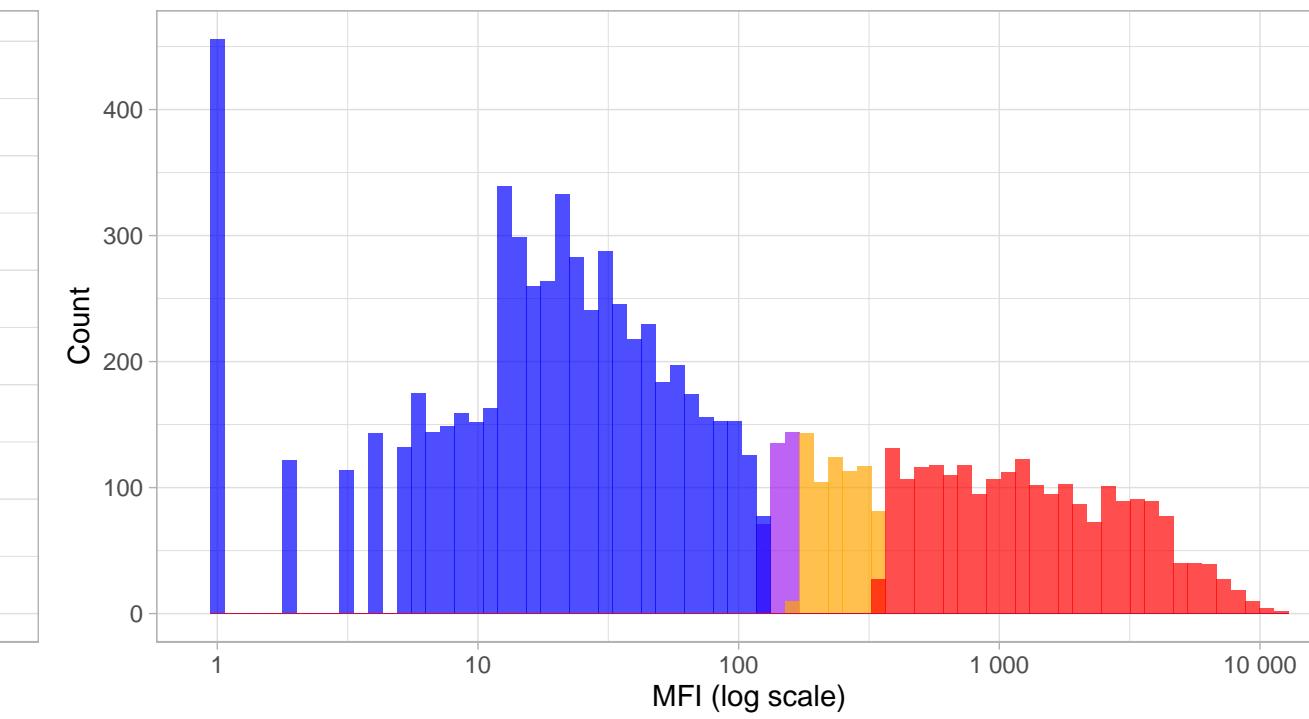
## High-Confidence Seropositive Distribution: hp\_omp

Prob threshold = 0.96



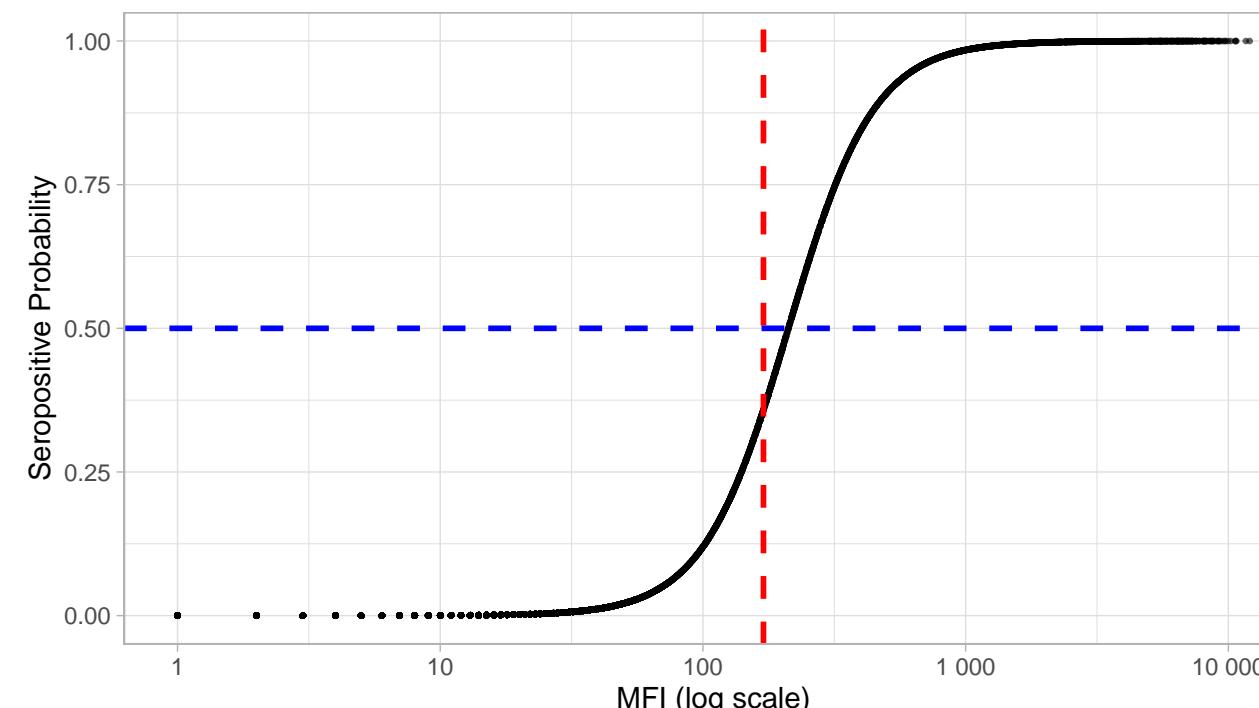
## Phenotype Distribution by Classification: hp\_omp

Comparing hard vs soft classifications



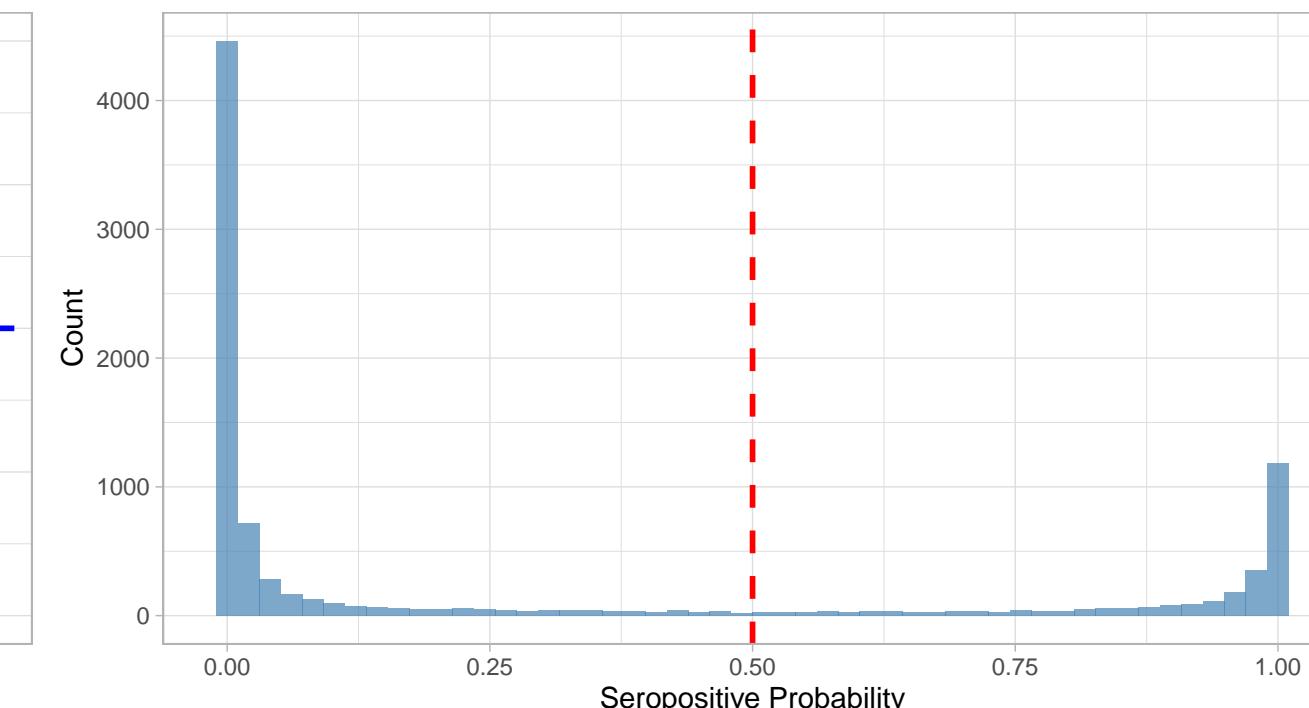
## IgG Level vs Seropositive Probability: hp\_omp

Red line = hard threshold, Blue line = 50% probability



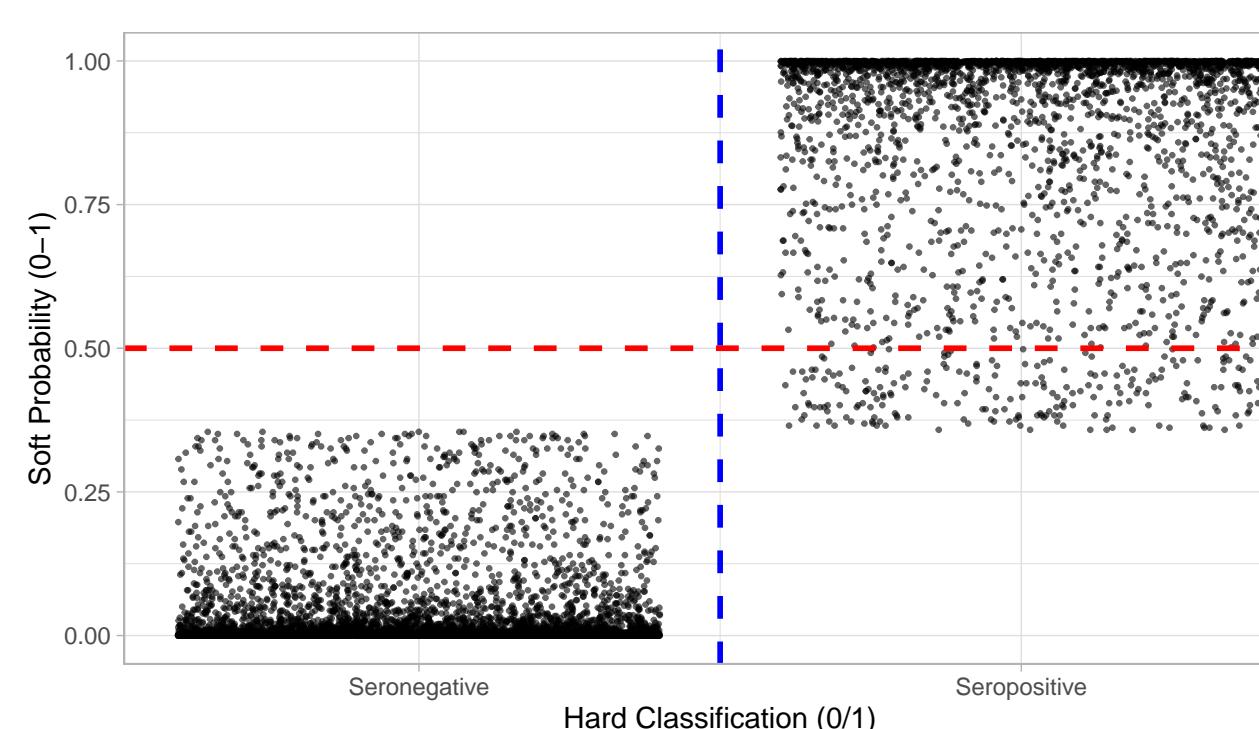
## Distribution of Seropositive Probabilities: hp\_omp

Red line = 50% threshold



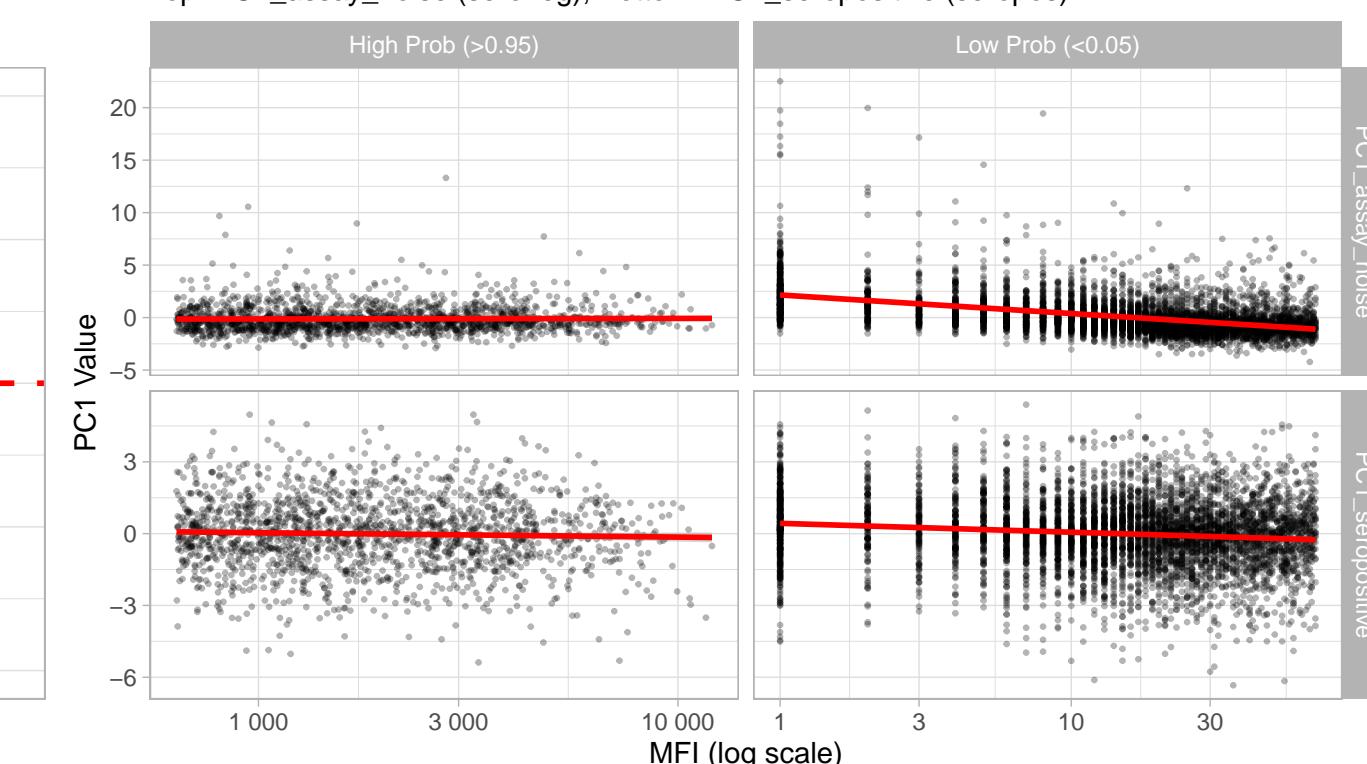
## Hard vs Soft Classification: hp\_omp

Red line = 50% soft threshold, Blue line = hard threshold



## PC1 Components vs IgG Level: hp\_omp

Top: PC1\_assay\_noise (seroneg), Bottom: PC1\_seropositive (seropos)

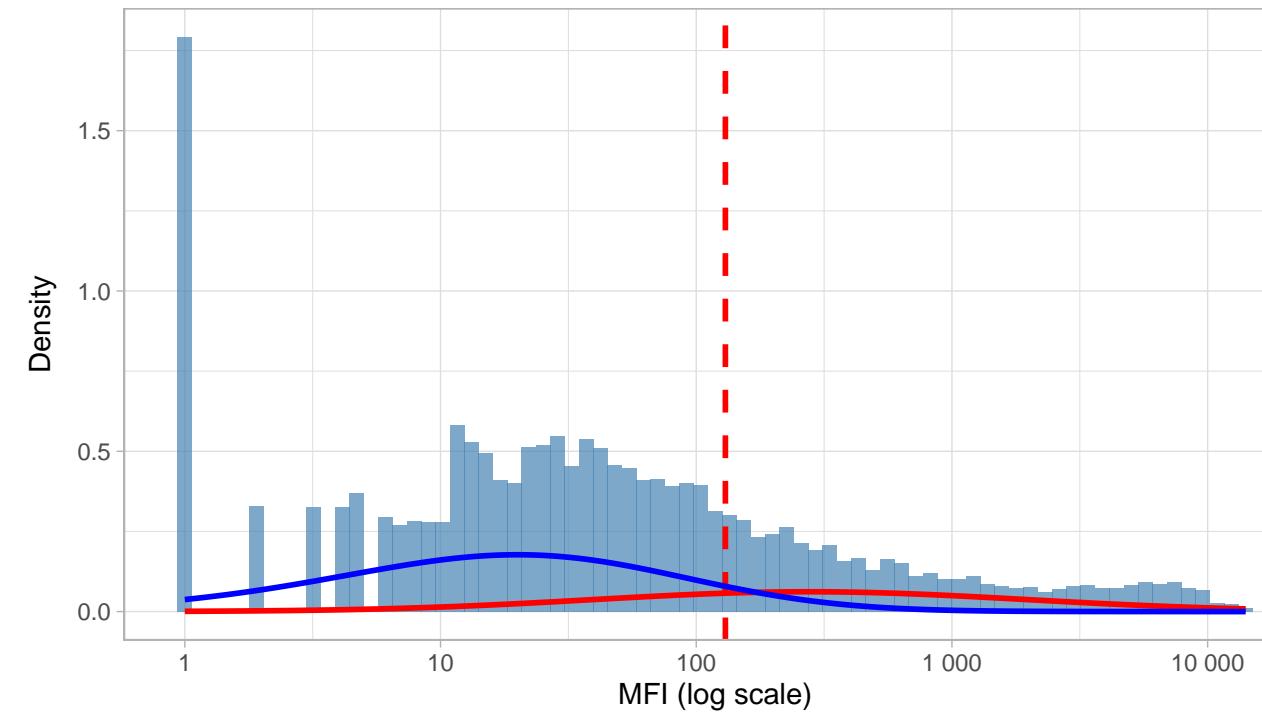


# Diagnostics: hp\_urea

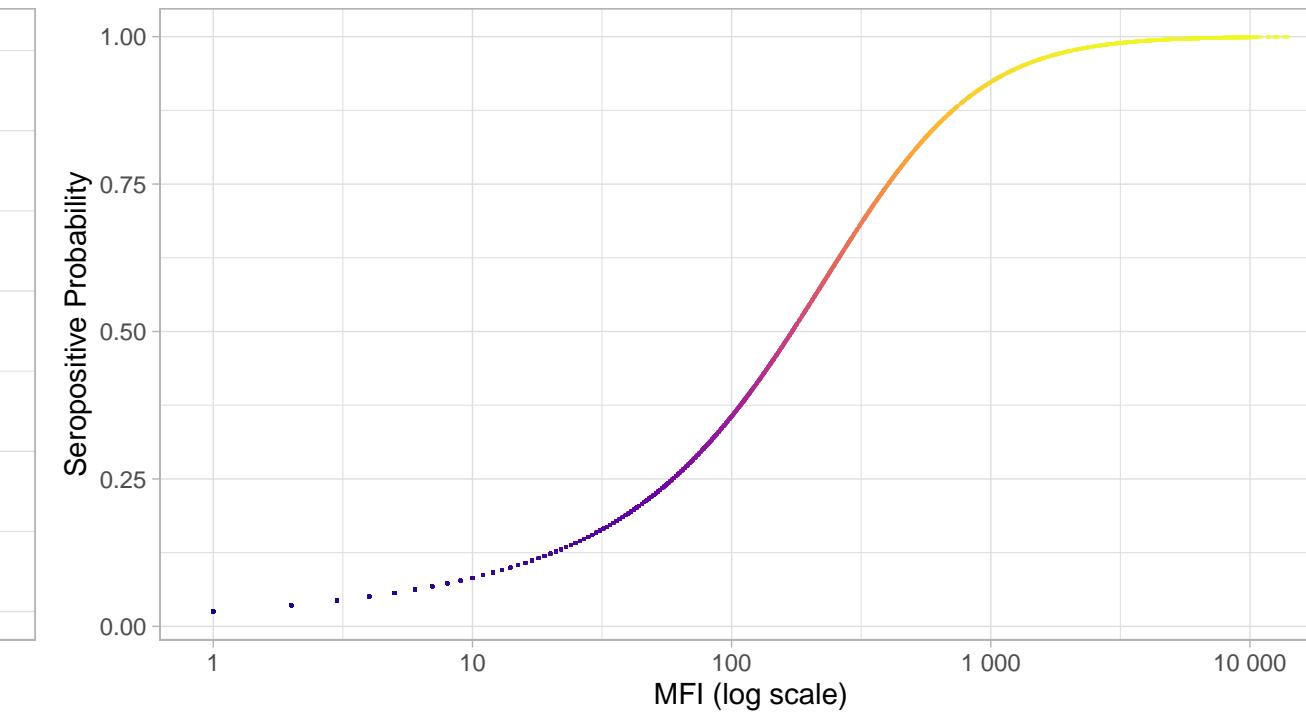
N=9424 | >0.95=685 | <0.05=1293 | Ambig=7446

Original MFI Distribution: hp\_urea

Hard cutoff threshold = 130

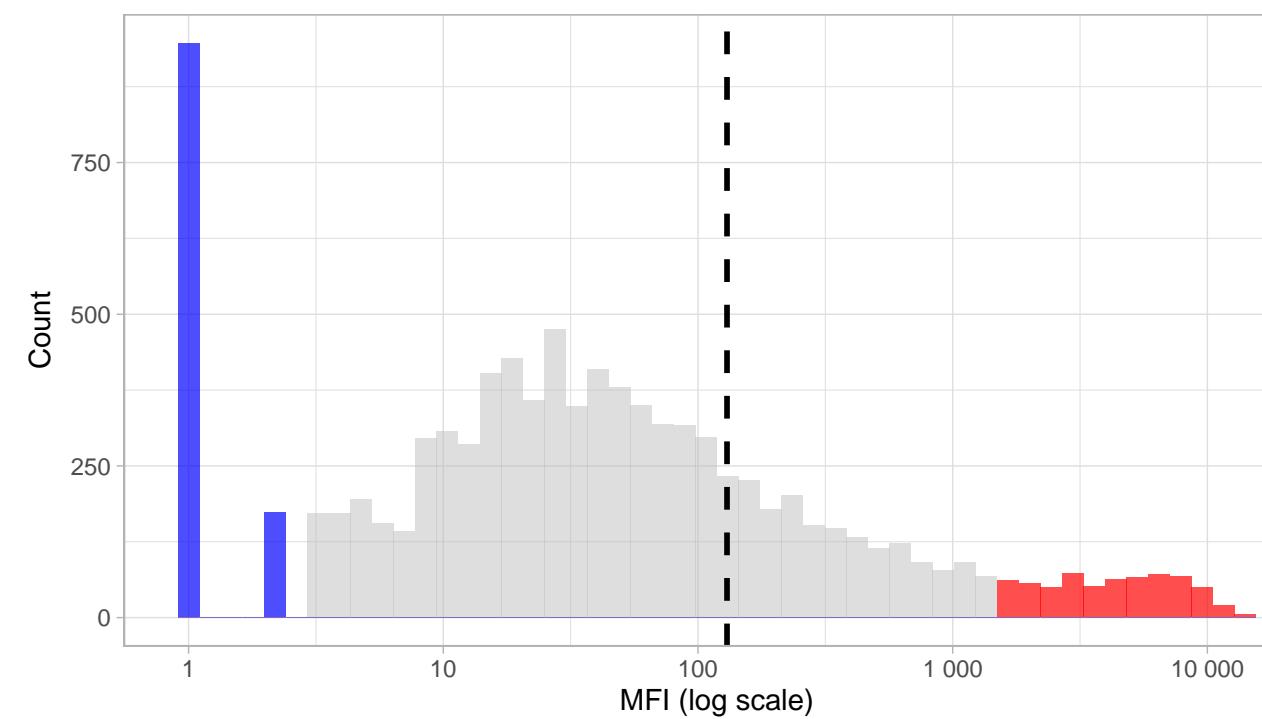


IgG vs Seropositive Probability: hp\_urea



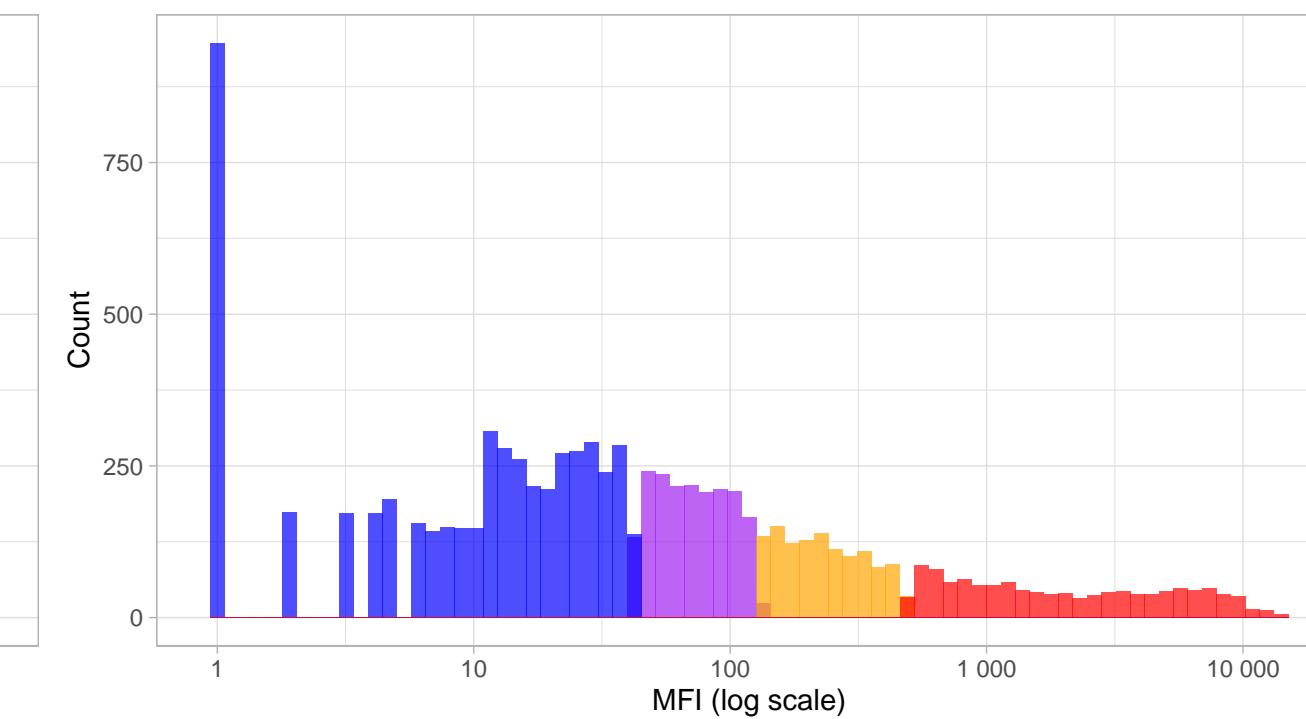
High-Confidence Seropositive Distribution: hp\_urea

Prob threshold = 0.96



Phenotype Distribution by Classification: hp\_urea

Comparing hard vs soft classifications



Seropositive Probability

Classification

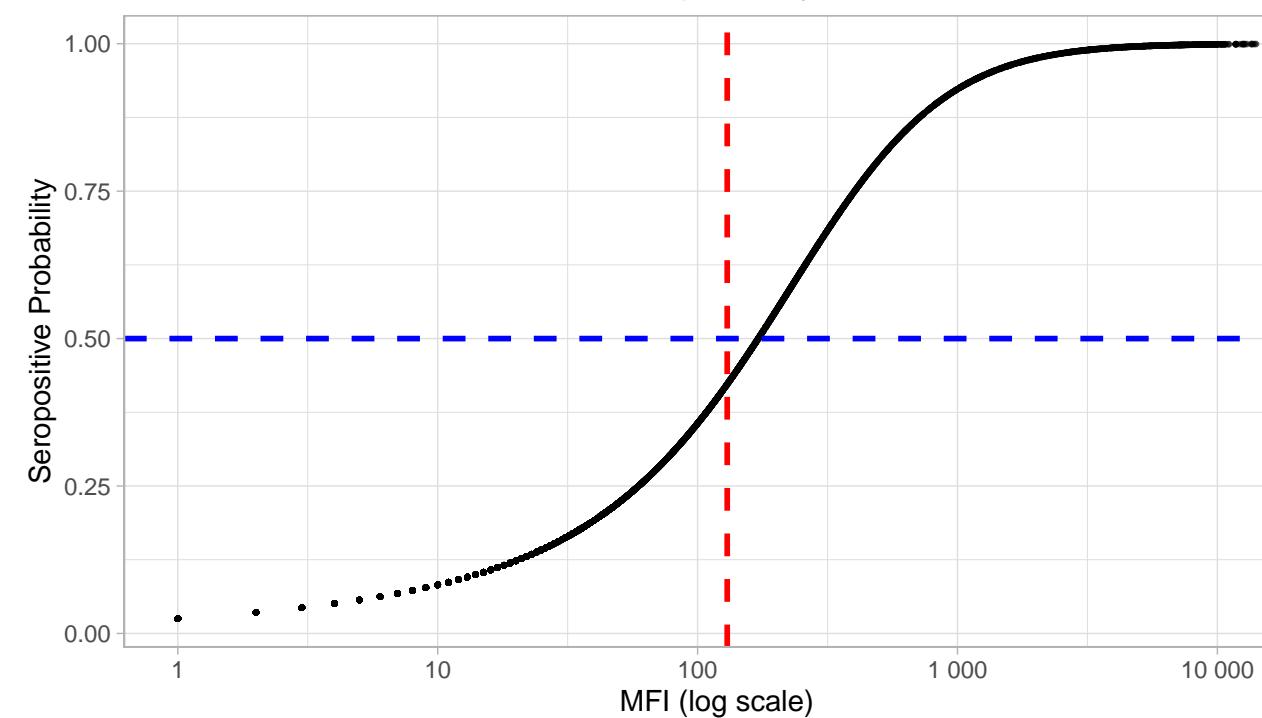
- Ambiguous
- High-conf Seronegative
- High-conf Seropositive

Classification

- Hard Negative, Soft High
- Hard Positive, Soft Low
- Hard+Soft Negative
- Hard+Soft Positive

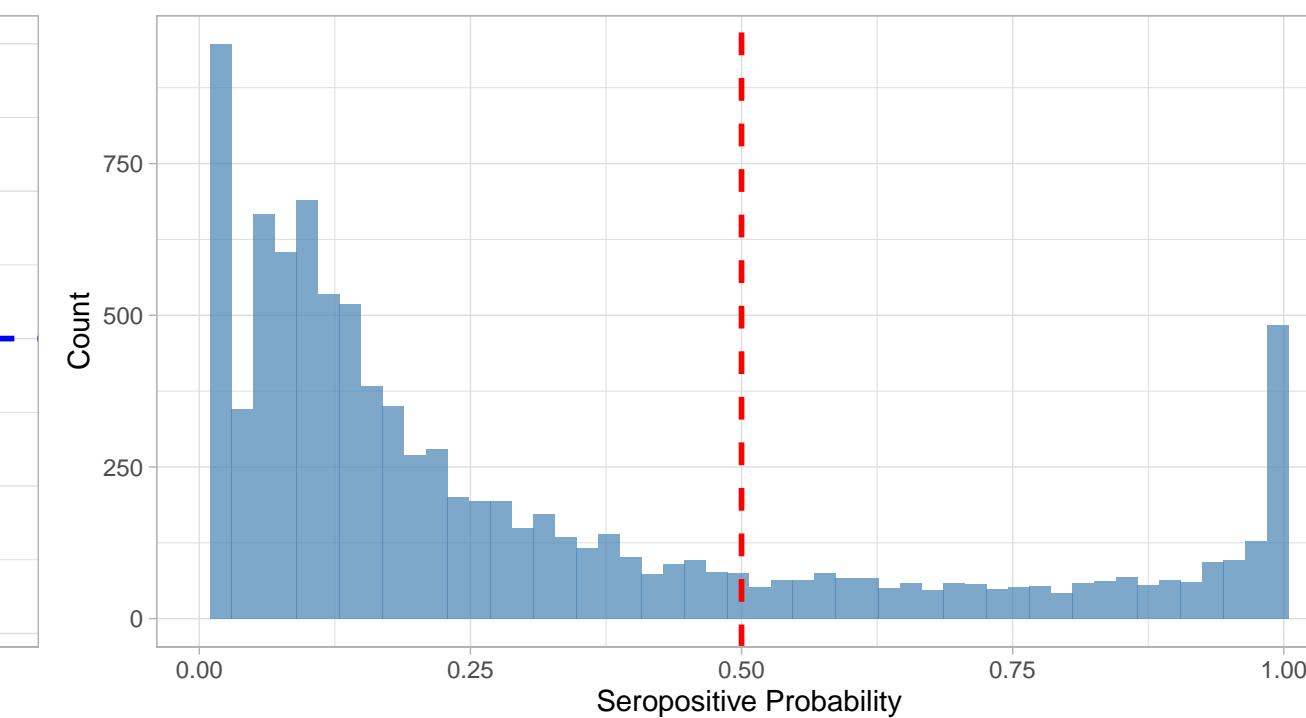
IgG Level vs Seropositive Probability: hp\_urea

Red line = hard threshold, Blue line = 50% probability



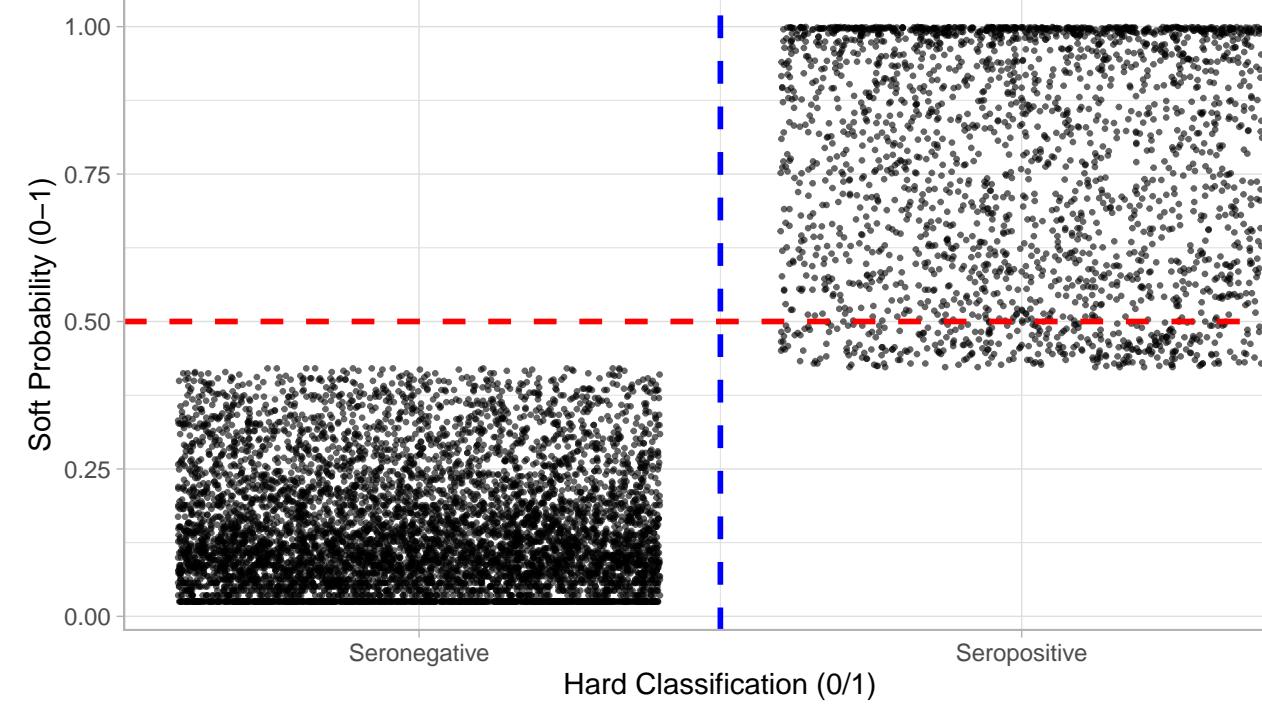
Distribution of Seropositive Probabilities: hp\_urea

Red line = 50% threshold



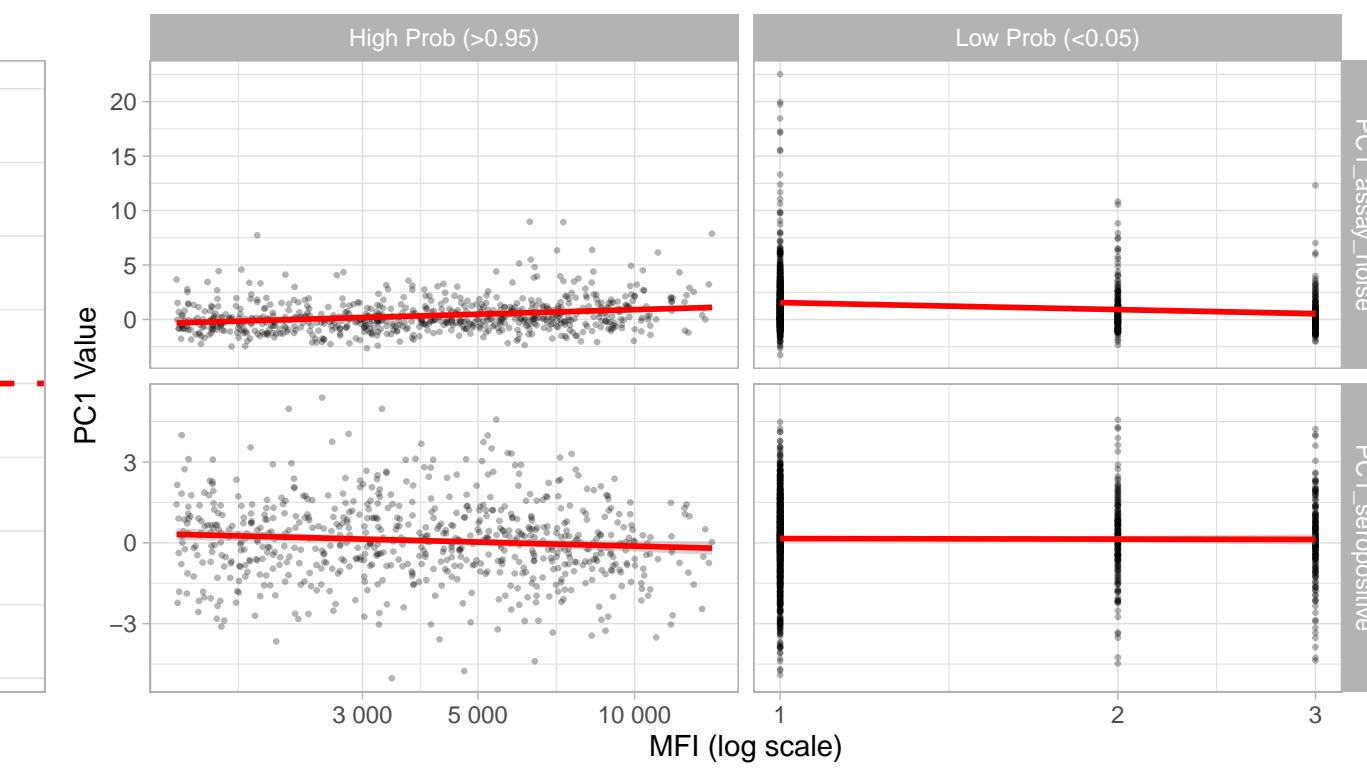
Hard vs Soft Classification: hp\_urea

Red line = 50% soft threshold, Blue line = hard threshold



PC1 Components vs IgG Level: hp\_urea

Top: PC1\_assay\_noise (seroneg), Bottom: PC1\_seropositive (seropos)



PC1 assay noise

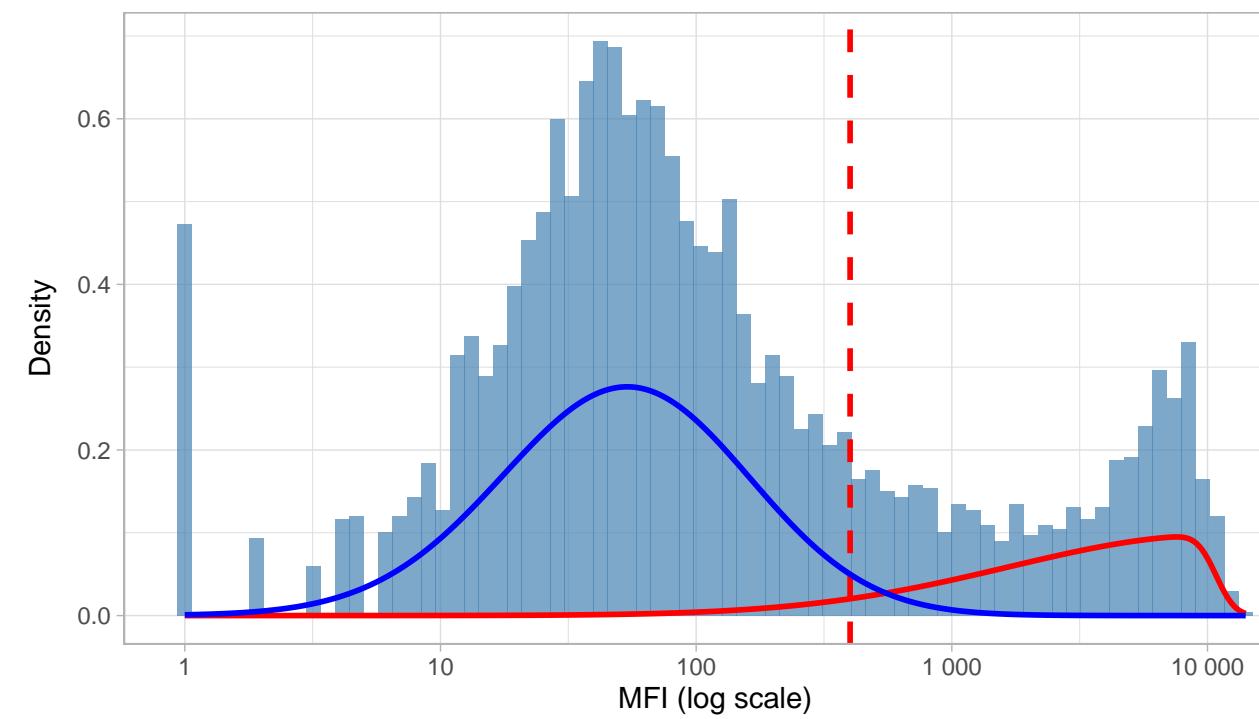
PC1 seropositive

# Diagnostics: hp\_caga

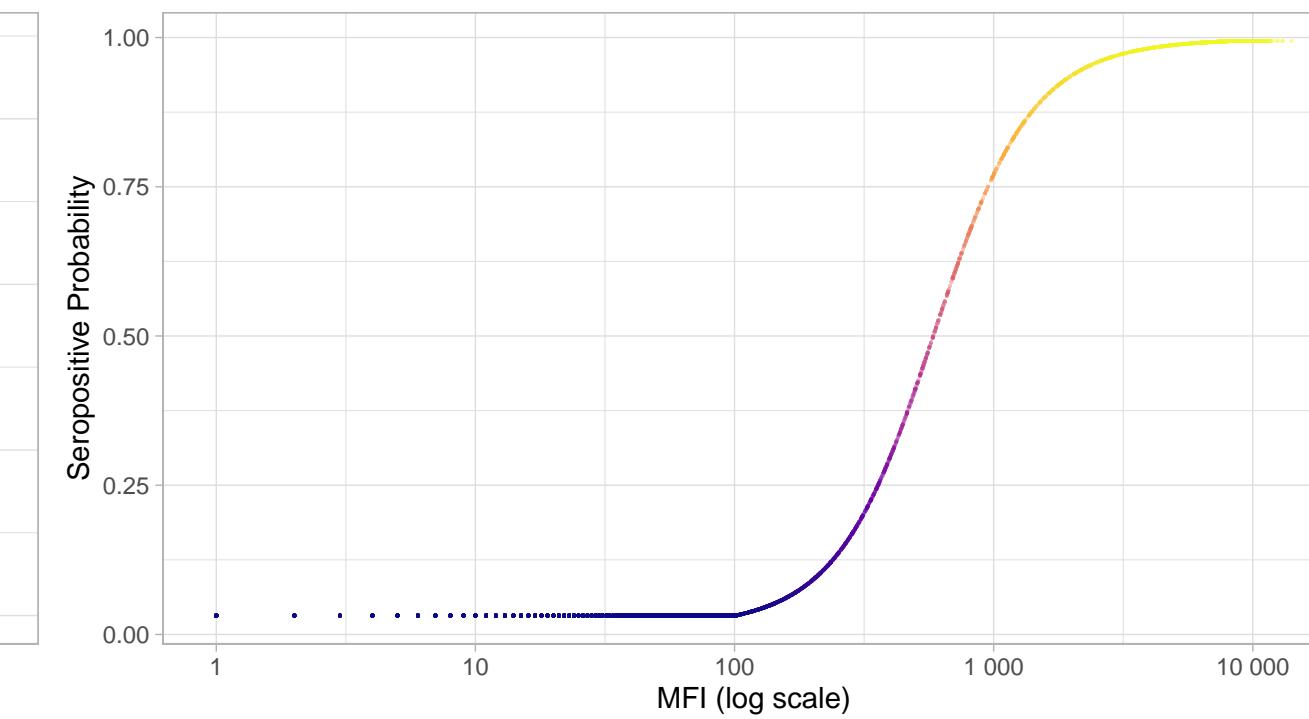
N=4754 | >0.95=632 | <0.05=3038 | Ambig=1084

Original MFI Distribution: hp\_caga

Hard cutoff threshold = 400

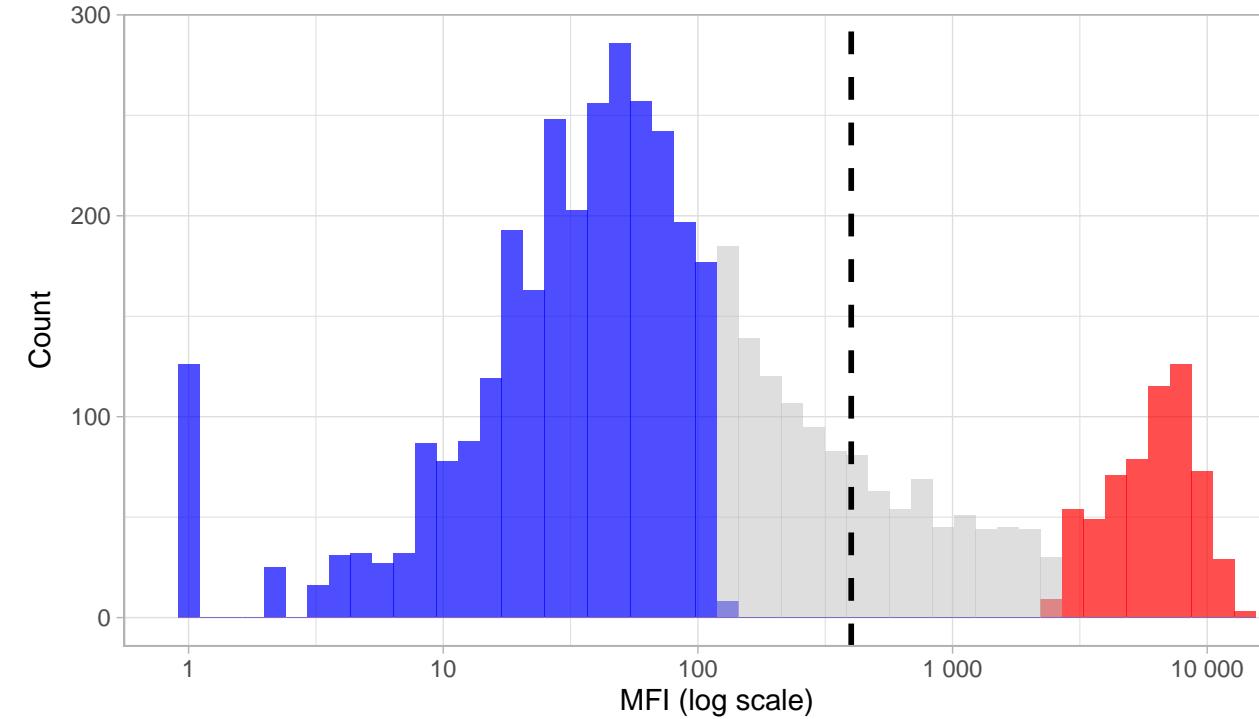


IgG vs Seropositive Probability: hp\_caga



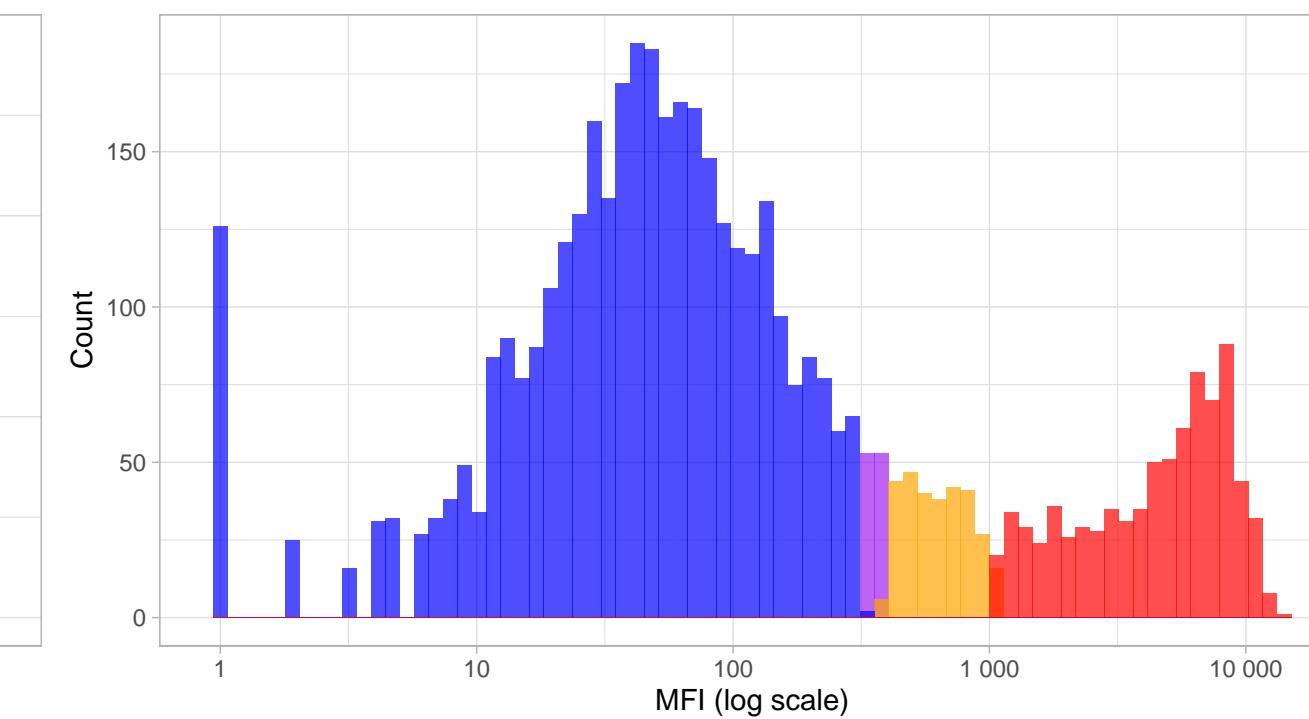
High-Confidence Seropositive Distribution: hp\_caga

Prob threshold = 0.96



Phenotype Distribution by Classification: hp\_caga

Comparing hard vs soft classifications



Seropositive Probability  
0.25  
0.50  
0.75

Classification

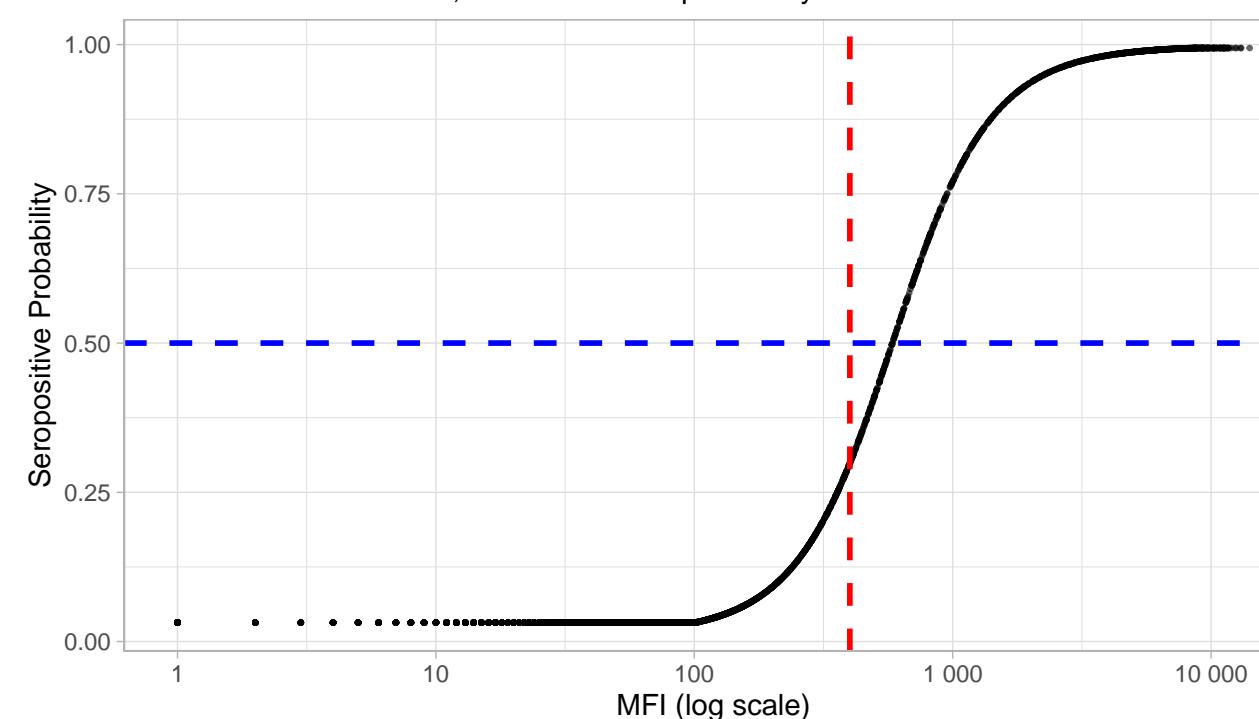
Ambiguous  
High-conf Seronegative  
High-conf Seropositive

Classification

Hard Negative, Soft High  
Hard Positive, Soft Low  
Hard+Soft Negative  
Hard+Soft Positive

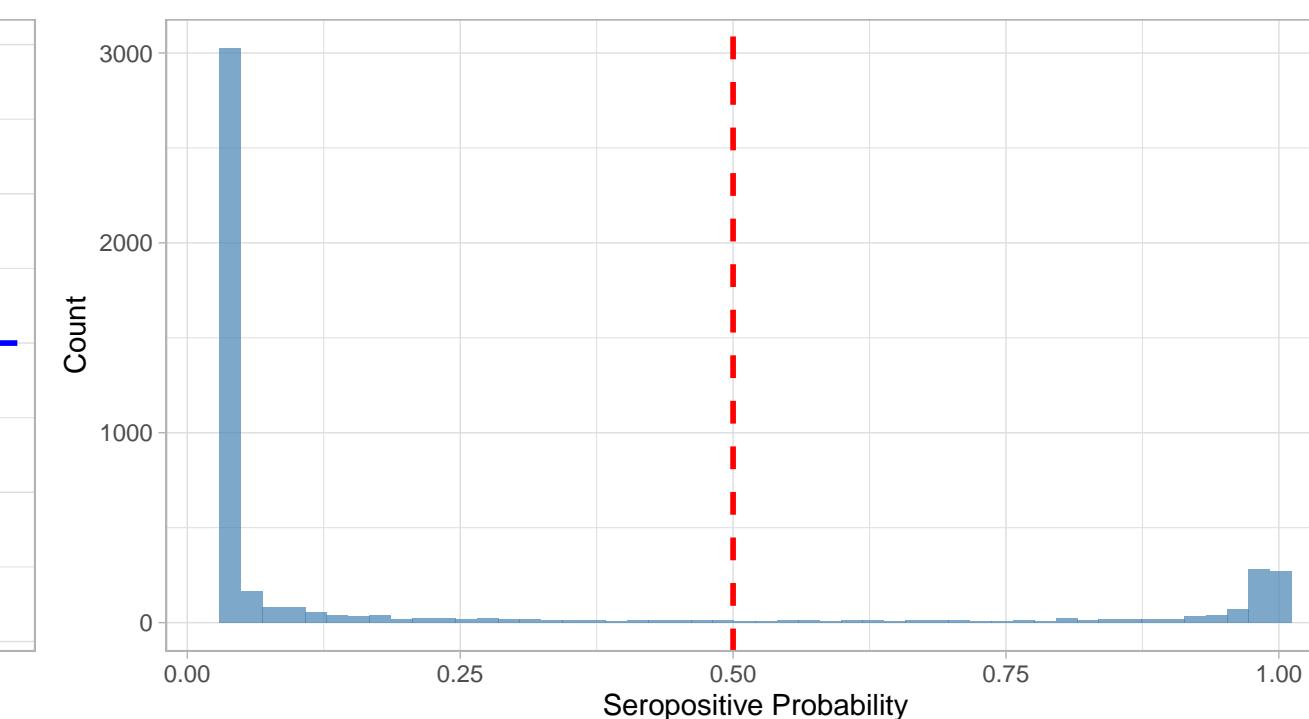
IgG Level vs Seropositive Probability: hp\_caga

Red line = hard threshold, Blue line = 50% probability



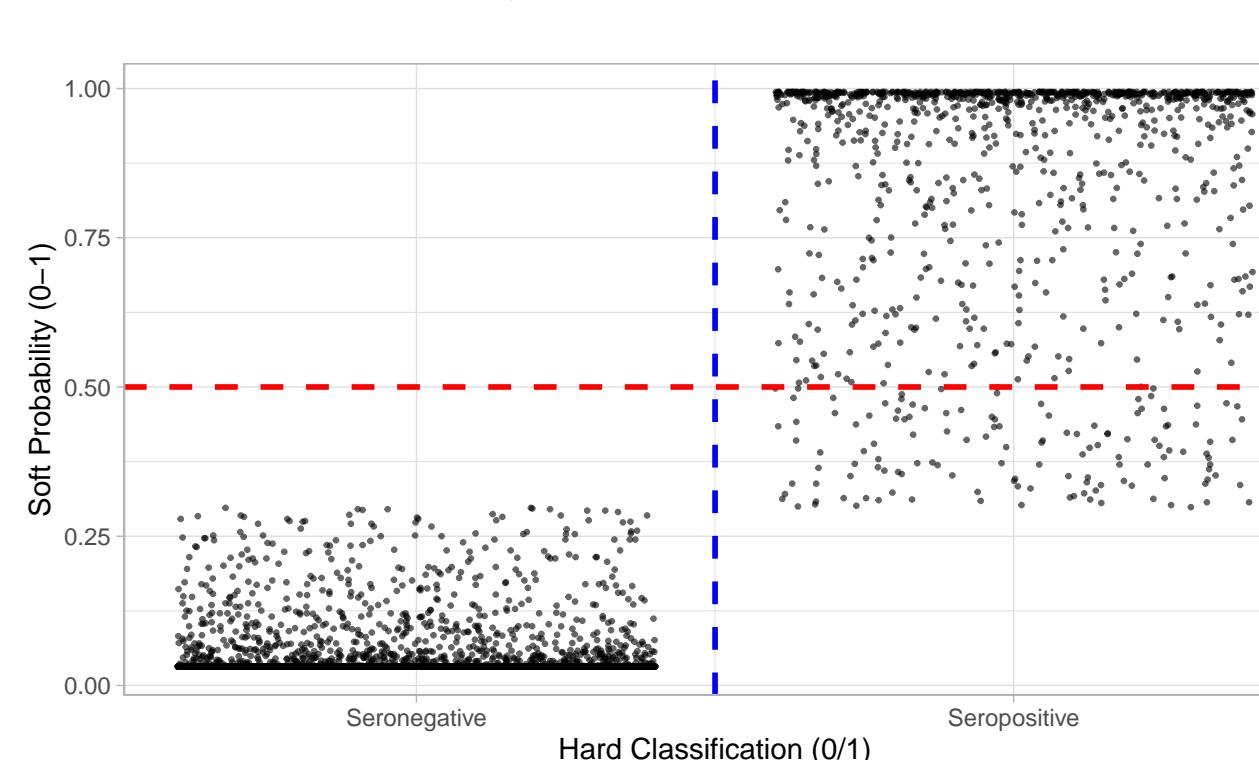
Distribution of Seropositive Probabilities: hp\_caga

Red line = 50% threshold



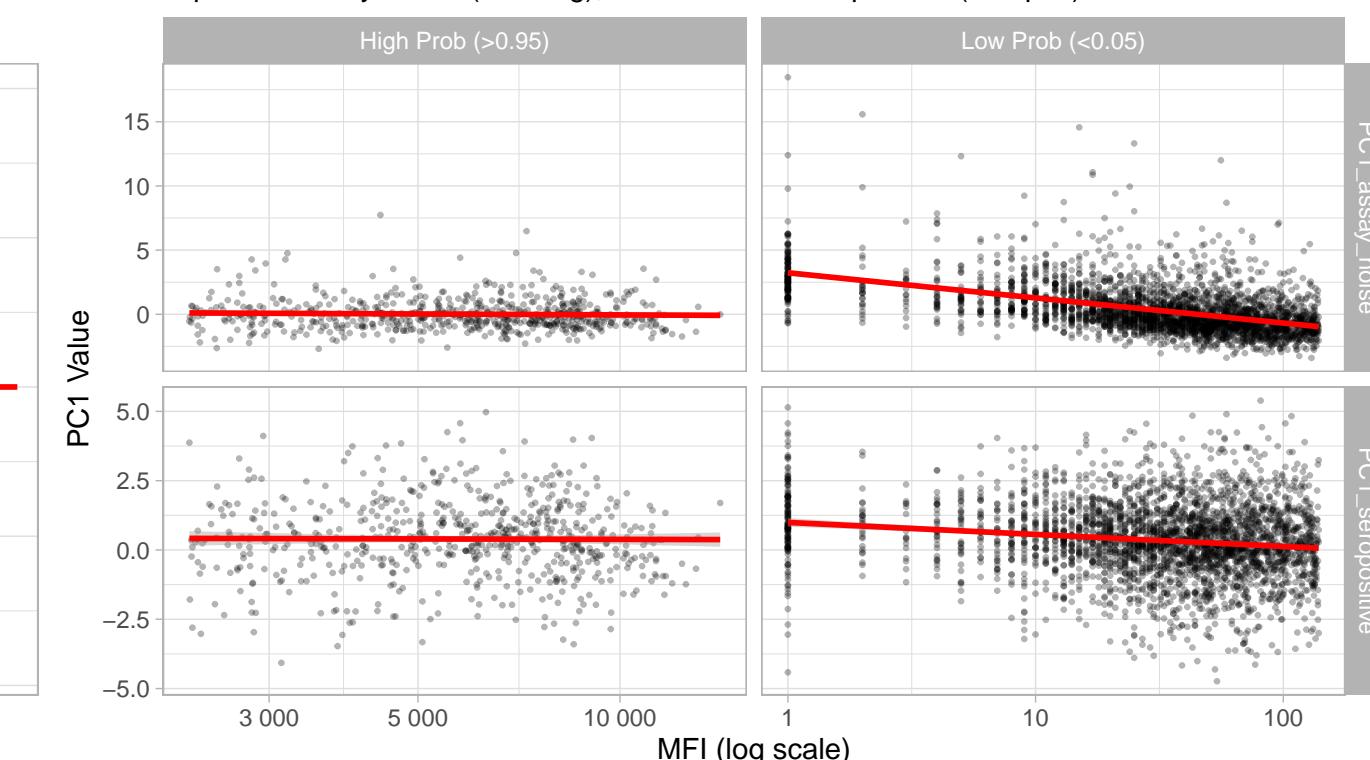
Hard vs Soft Classification: hp\_caga

Red line = 50% soft threshold, Blue line = hard threshold



PC1 Components vs IgG Level: hp\_caga

Top: PC1\_assay\_noise (seroneg), Bottom: PC1\_seropositive (seropos)

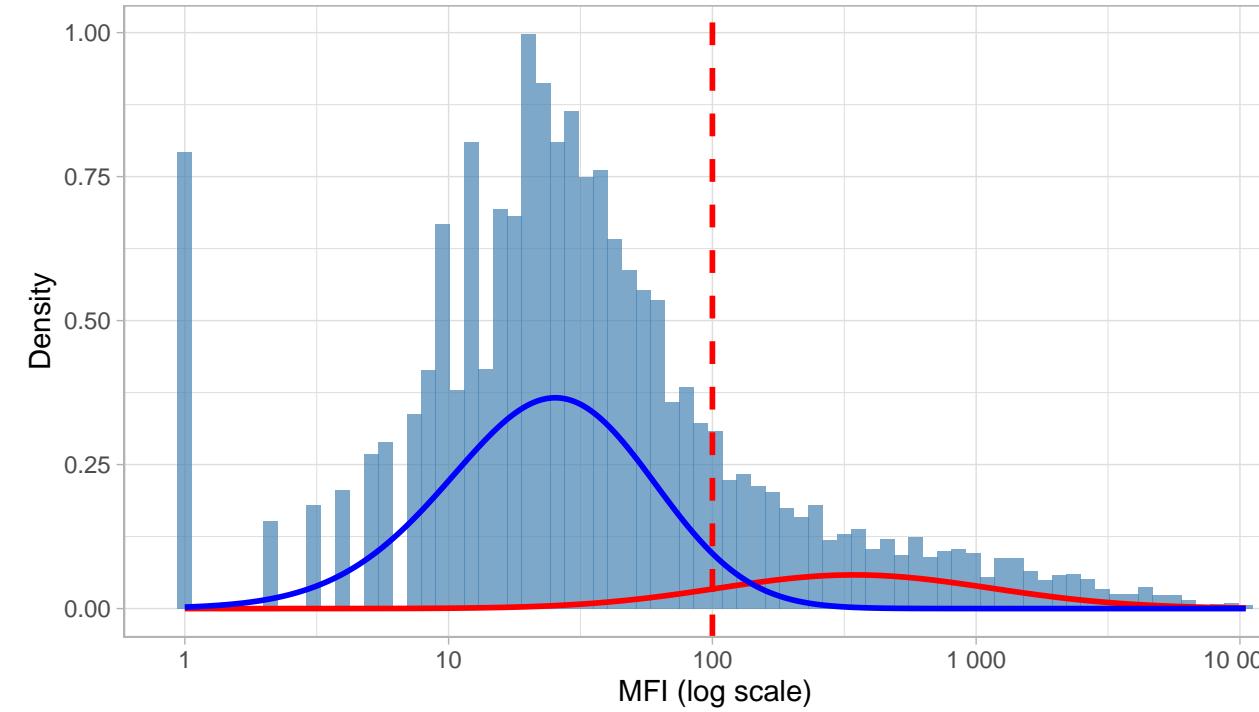


# Diagnostics: hp\_vaca

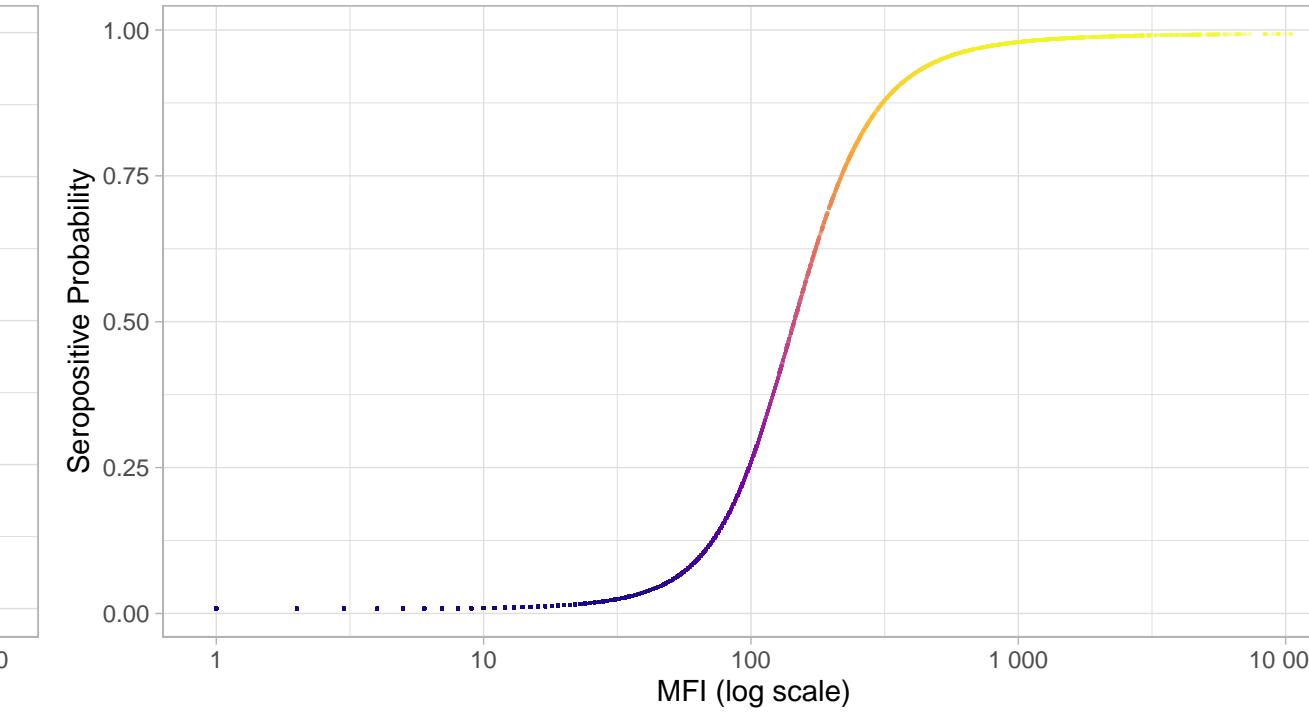
N=9424 | >0.95=659 | <0.05=6252 | Ambig=2513

Original MFI Distribution: hp\_vaca

Hard cutoff threshold = 100

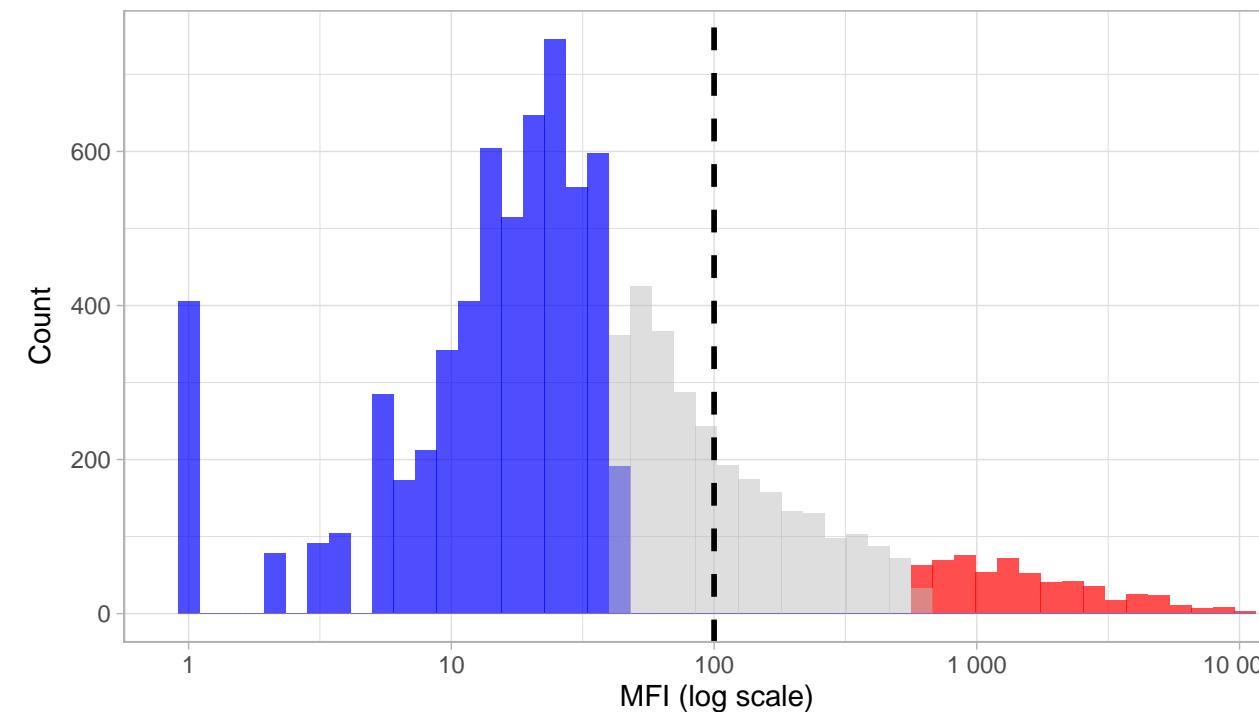


IgG vs Seropositive Probability: hp\_vaca



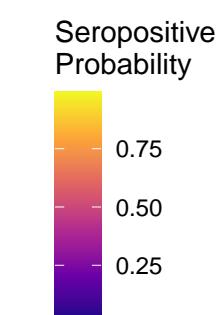
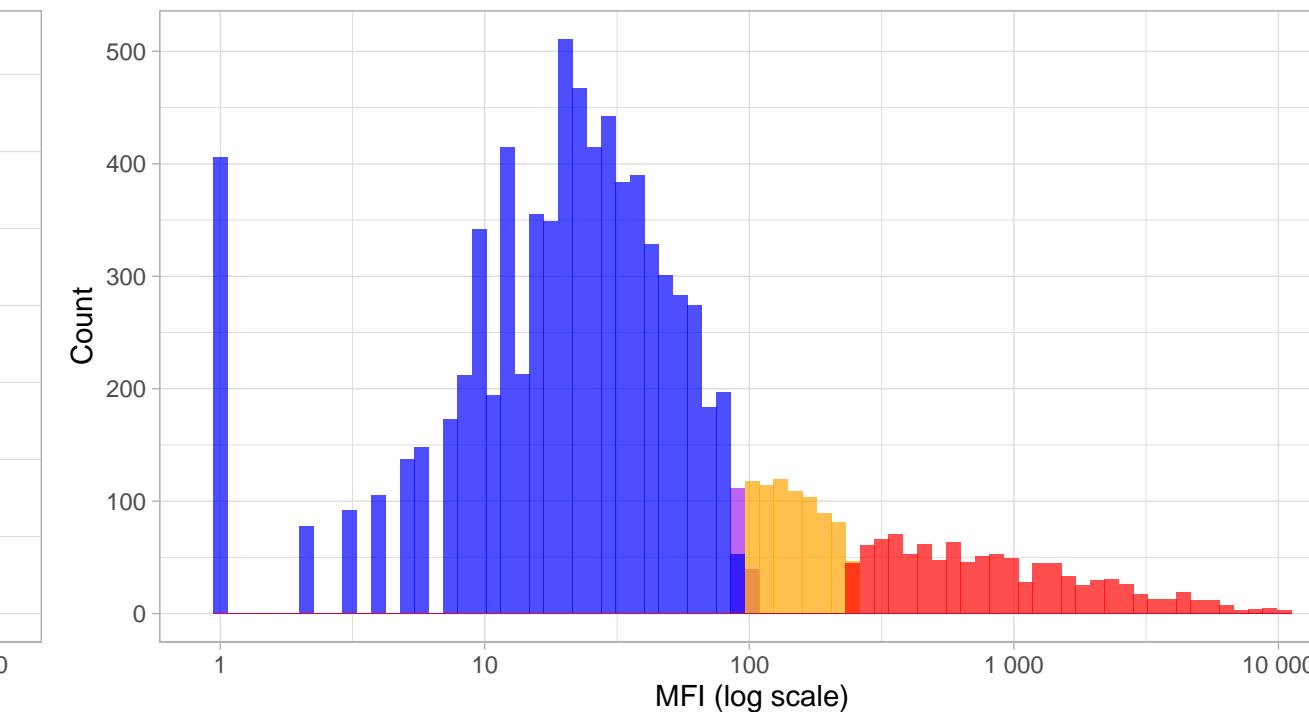
High-Confidence Seropositive Distribution: hp\_vaca

Prob threshold = 0.96

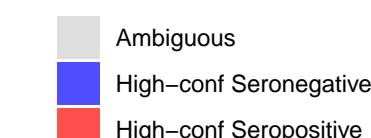


Phenotype Distribution by Classification: hp\_vaca

Comparing hard vs soft classifications

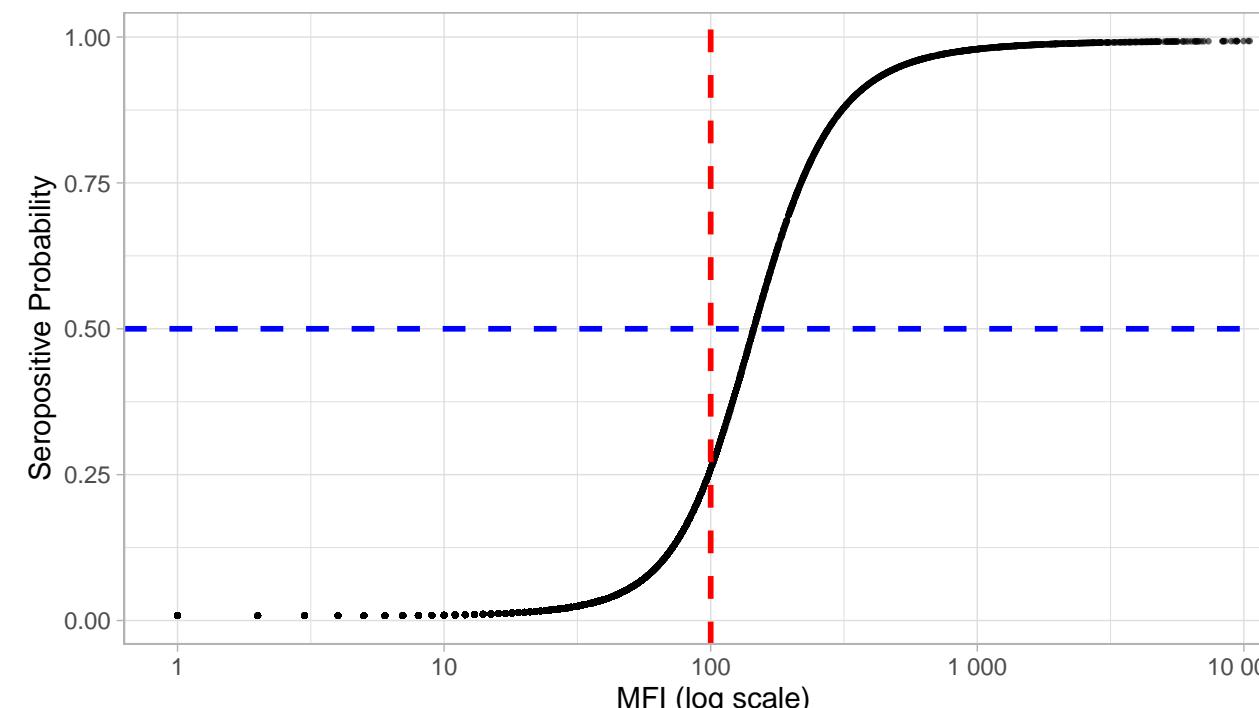


Classification



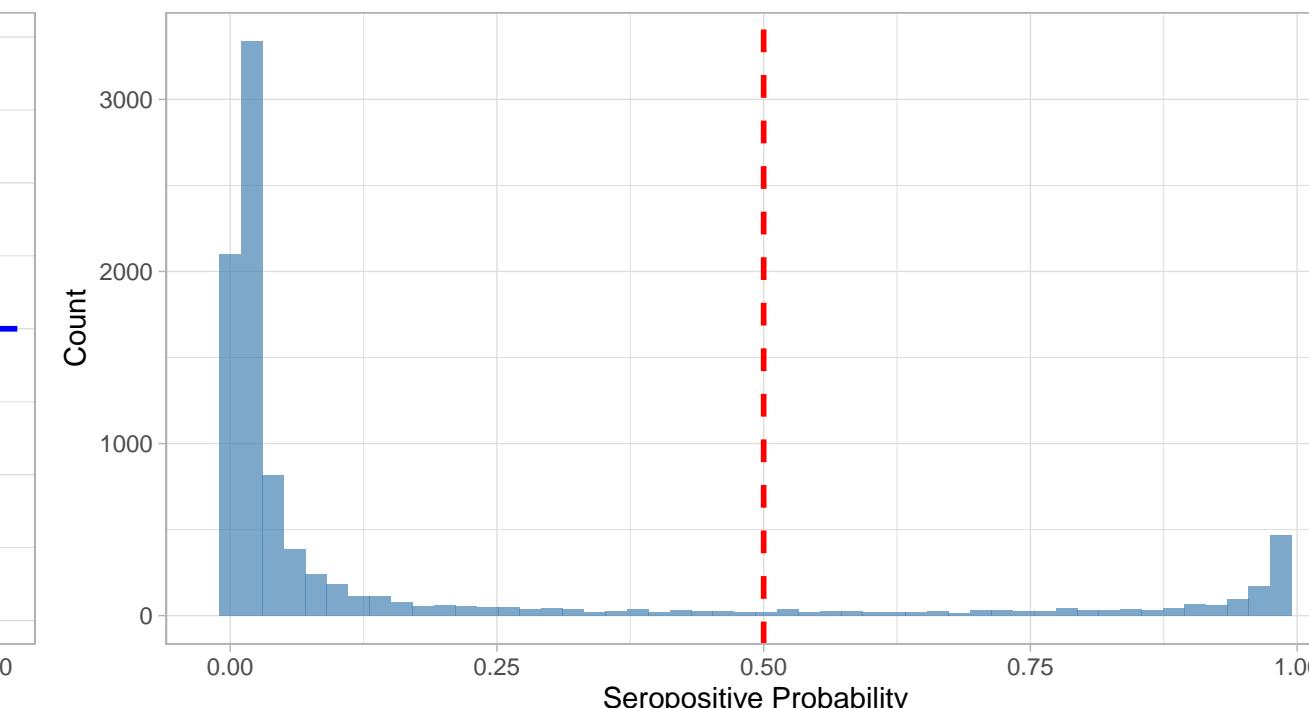
IgG Level vs Seropositive Probability: hp\_vaca

Red line = hard threshold, Blue line = 50% probability



Distribution of Seropositive Probabilities: hp\_vaca

Red line = 50% threshold

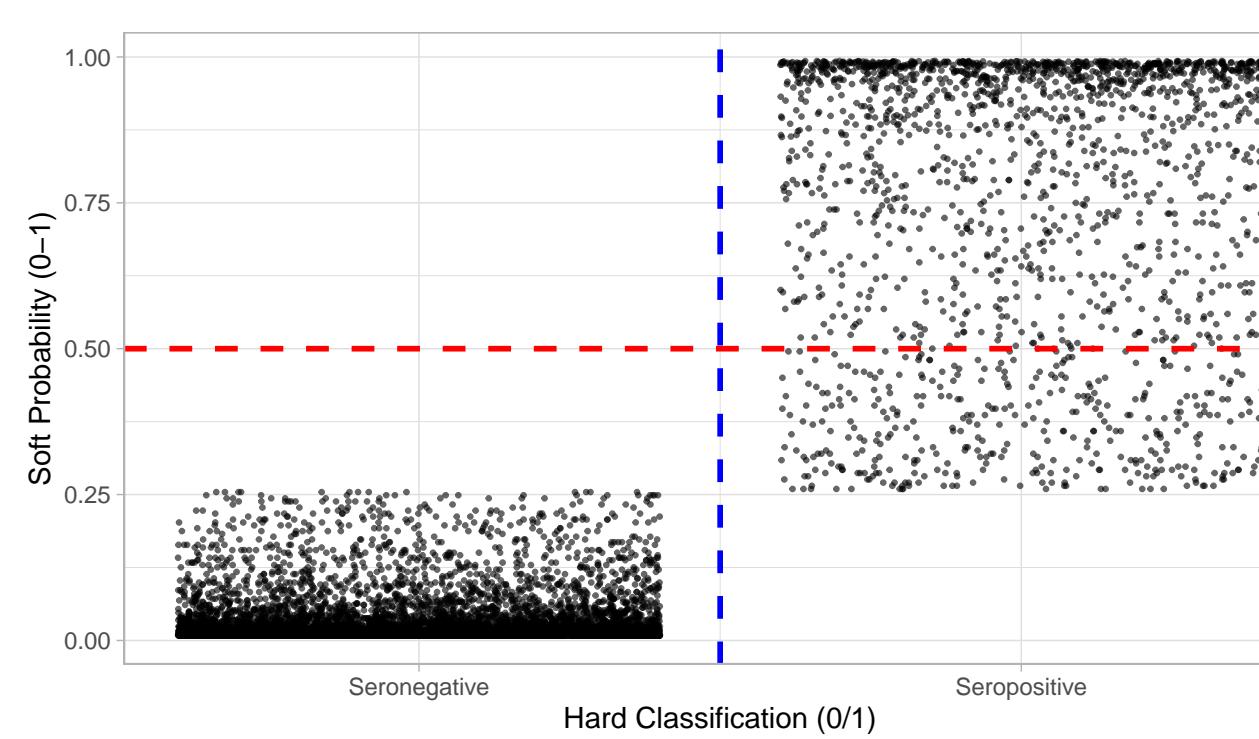


Classification



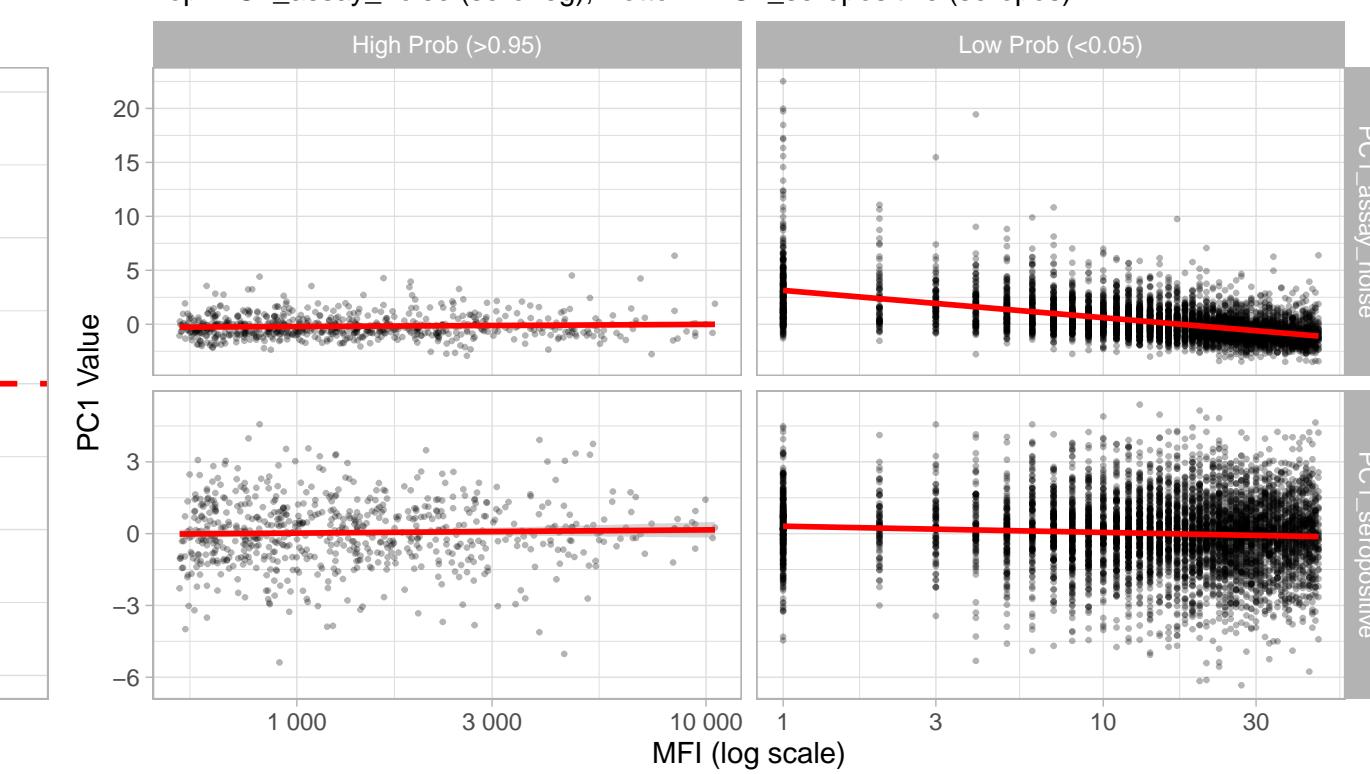
Hard vs Soft Classification: hp\_vaca

Red line = 50% soft threshold, Blue line = hard threshold



PC1 Components vs IgG Level: hp\_vaca

Top: PC1\_assay\_noise (seroneg), Bottom: PC1\_seropositive (seropos)



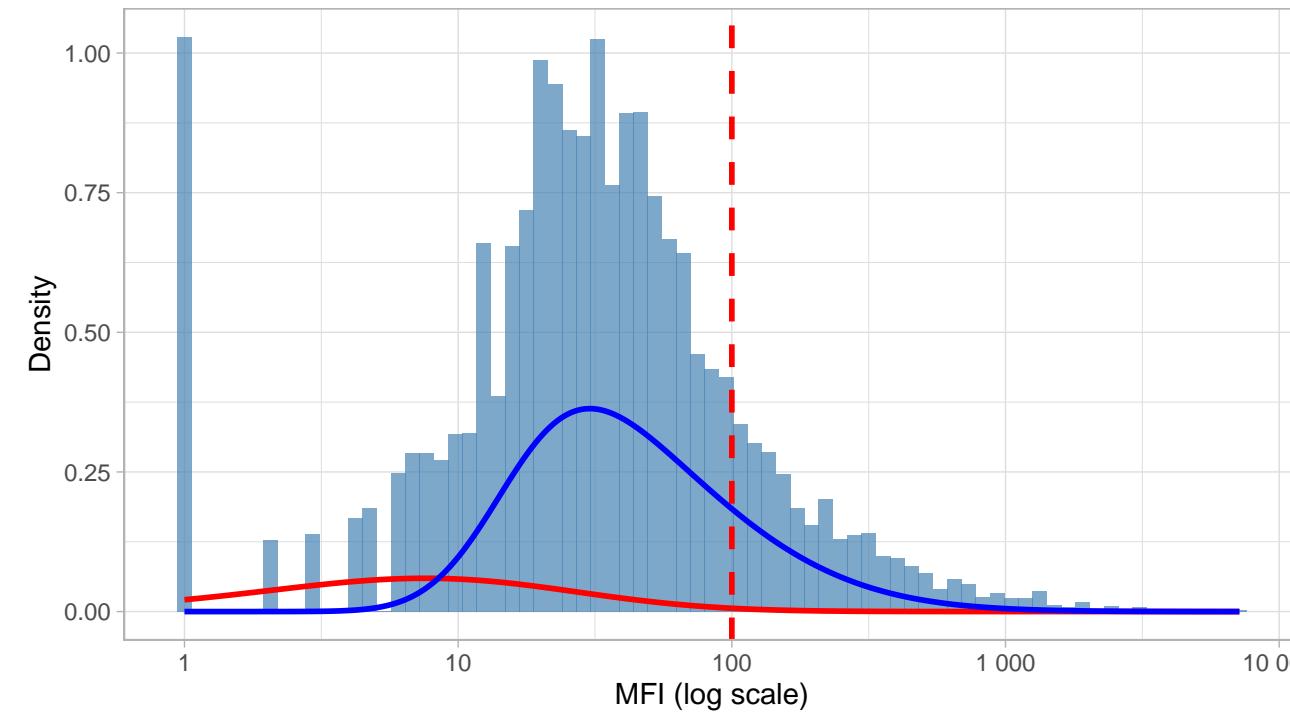
PC1\_seropositive

# Diagnostics: toxo\_p22

N=9424 | >0.95=9424 | <0.05=0 | Ambig=0

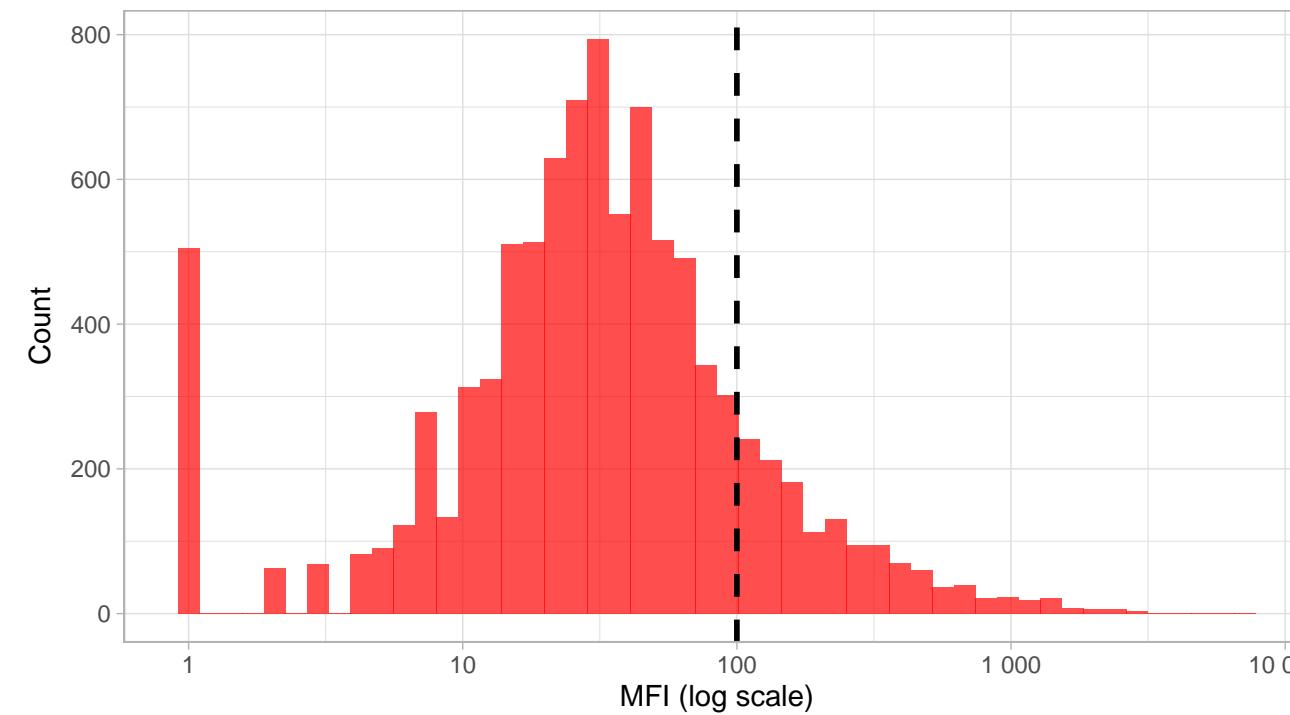
Original MFI Distribution: toxo\_p22

Hard cutoff threshold = 100



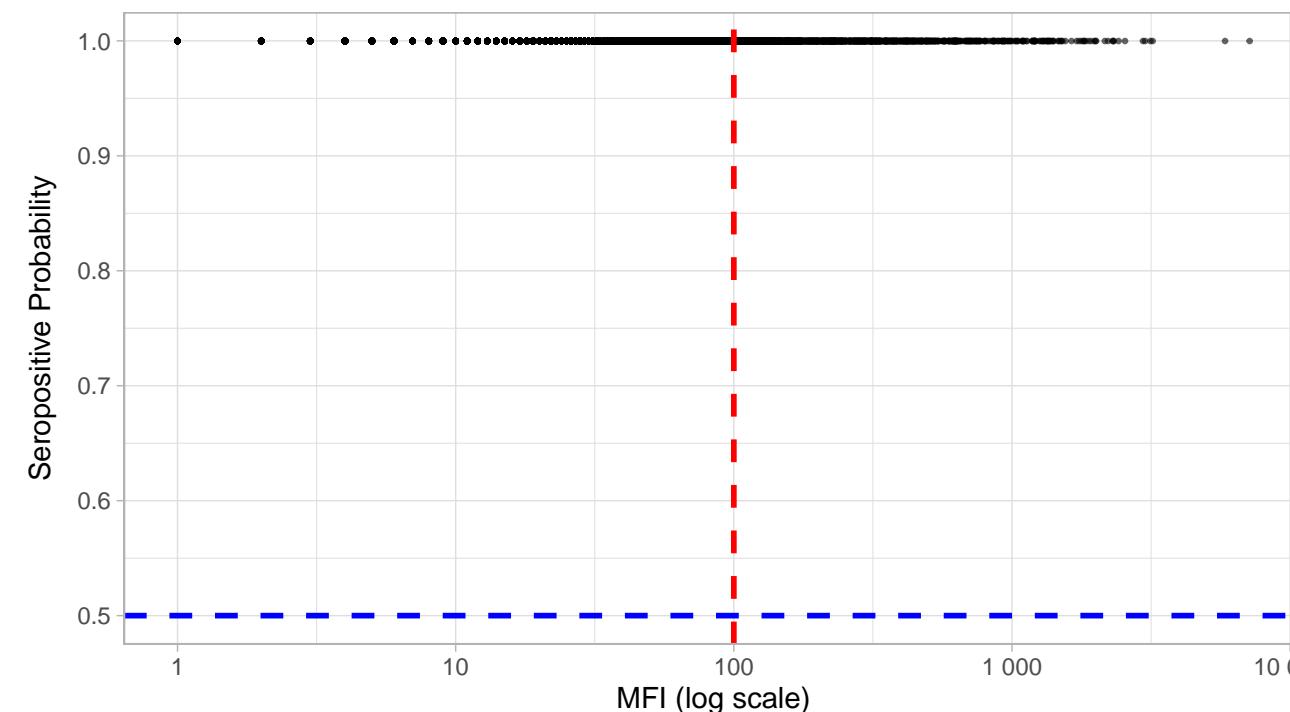
High-Confidence Seropositive Distribution: toxo\_p22

Prob threshold = 0.96



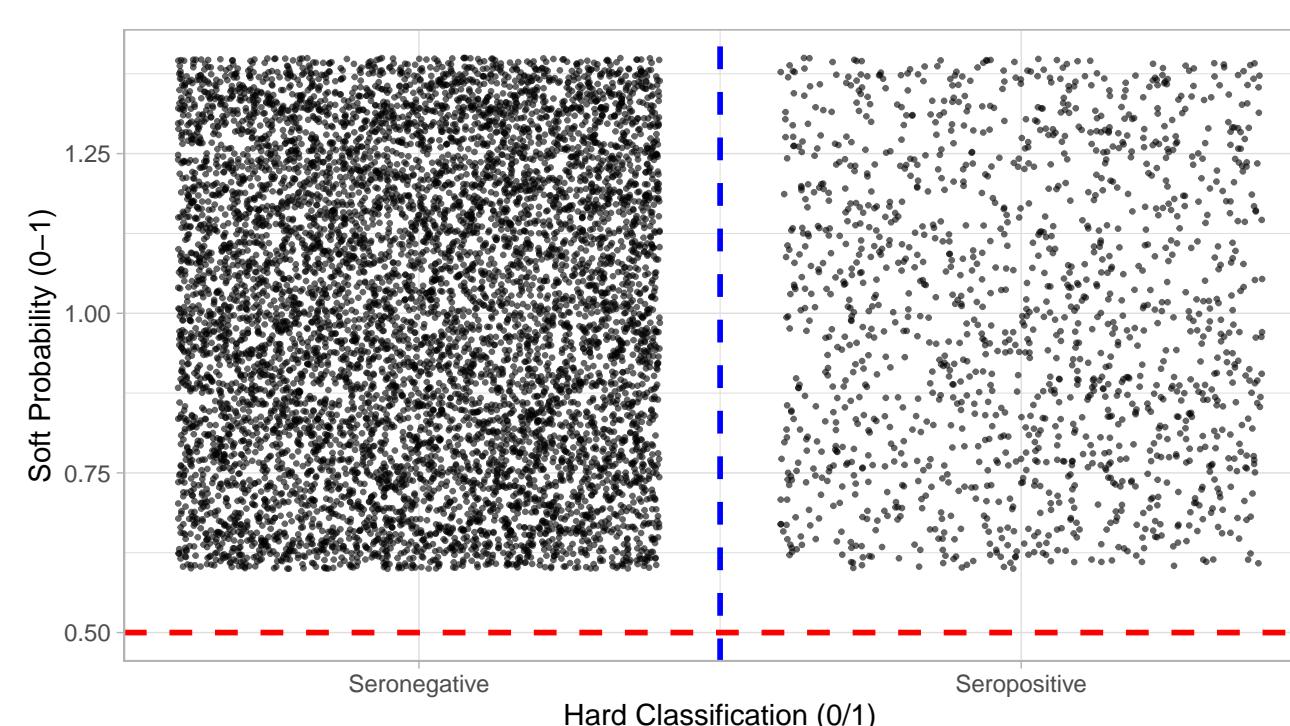
IgG Level vs Seropositive Probability: toxo\_p22

Red line = hard threshold, Blue line = 50% probability

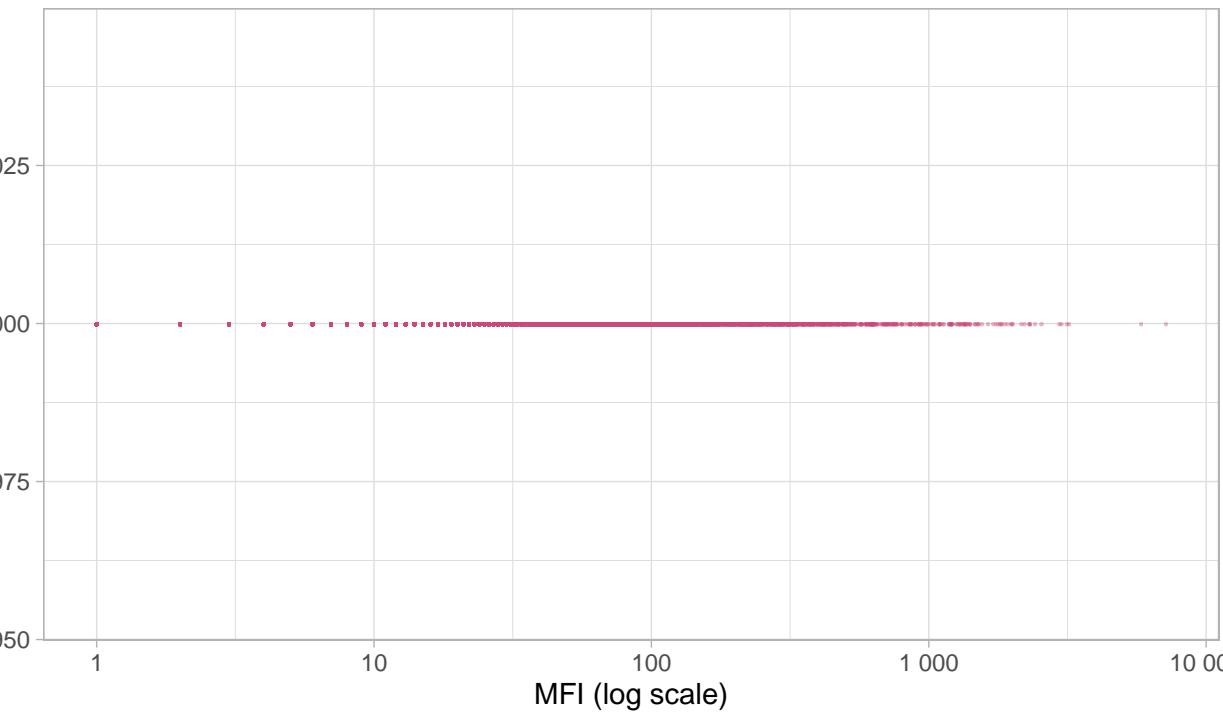


Hard vs Soft Classification: toxo\_p22

Red line = 50% soft threshold, Blue line = hard threshold

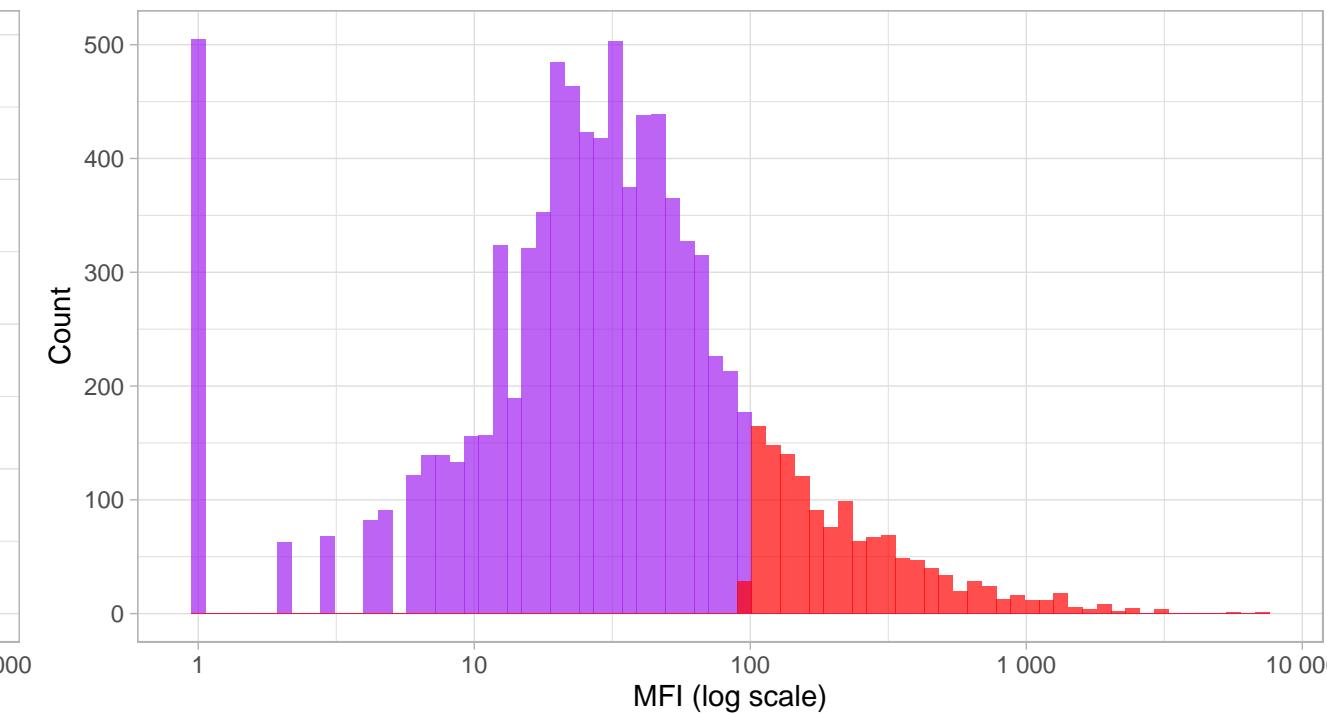


IgG vs Seropositive Probability: toxo\_p22



Phenotype Distribution by Classification: toxo\_p22

Comparing hard vs soft classifications



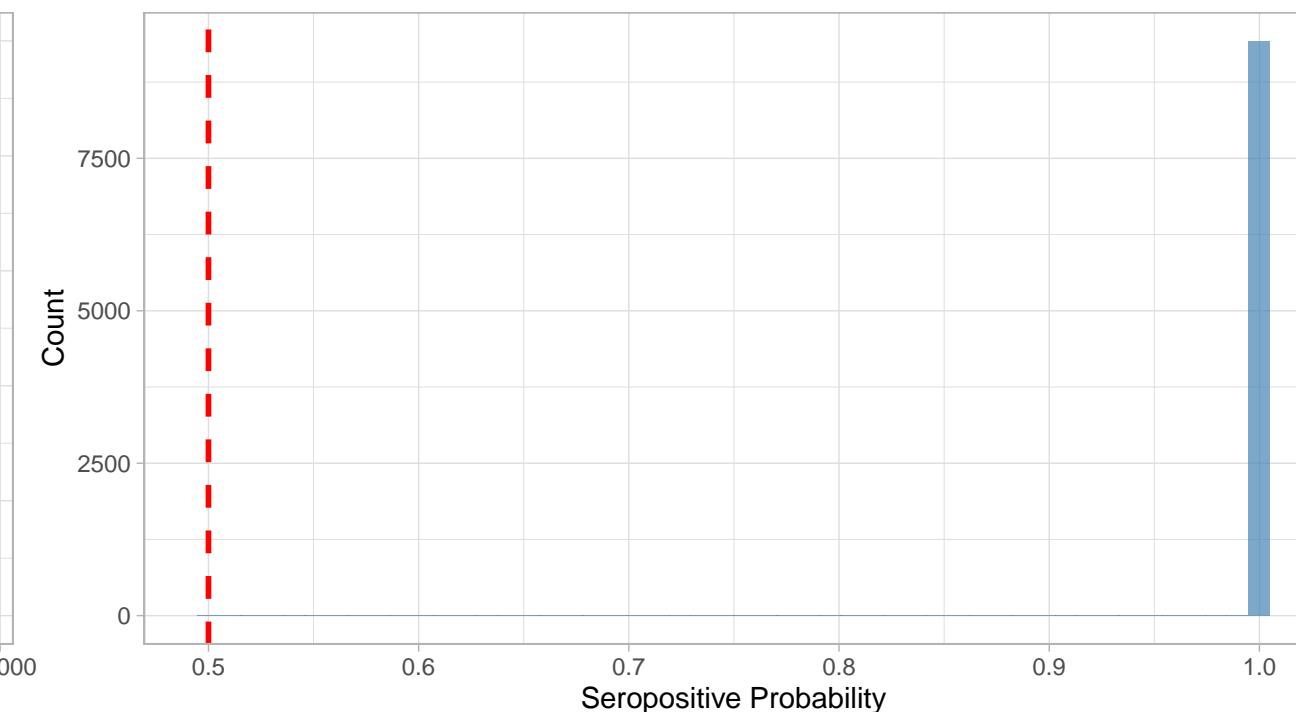
Seropositive Probability  
0.9998788

Classification  
High-conf Seropositive

Classification  
Hard Negative, Soft High  
Hard+Soft Positive

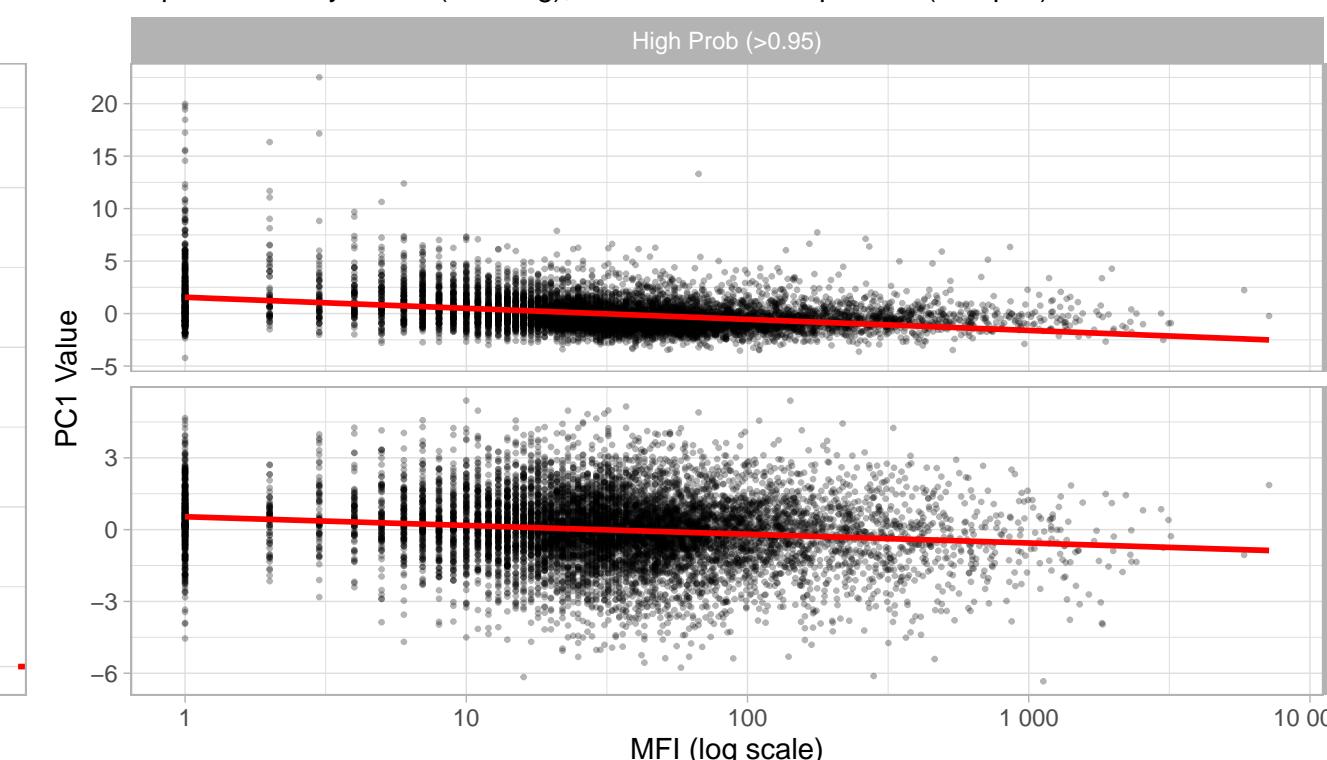
Distribution of Seropositive Probabilities: toxo\_p22

Red line = 50% threshold



PC1 Components vs IgG Level: toxo\_p22

Top: PC1\_assay\_noise (seroneg), Bottom: PC1\_seropositive (seropos)



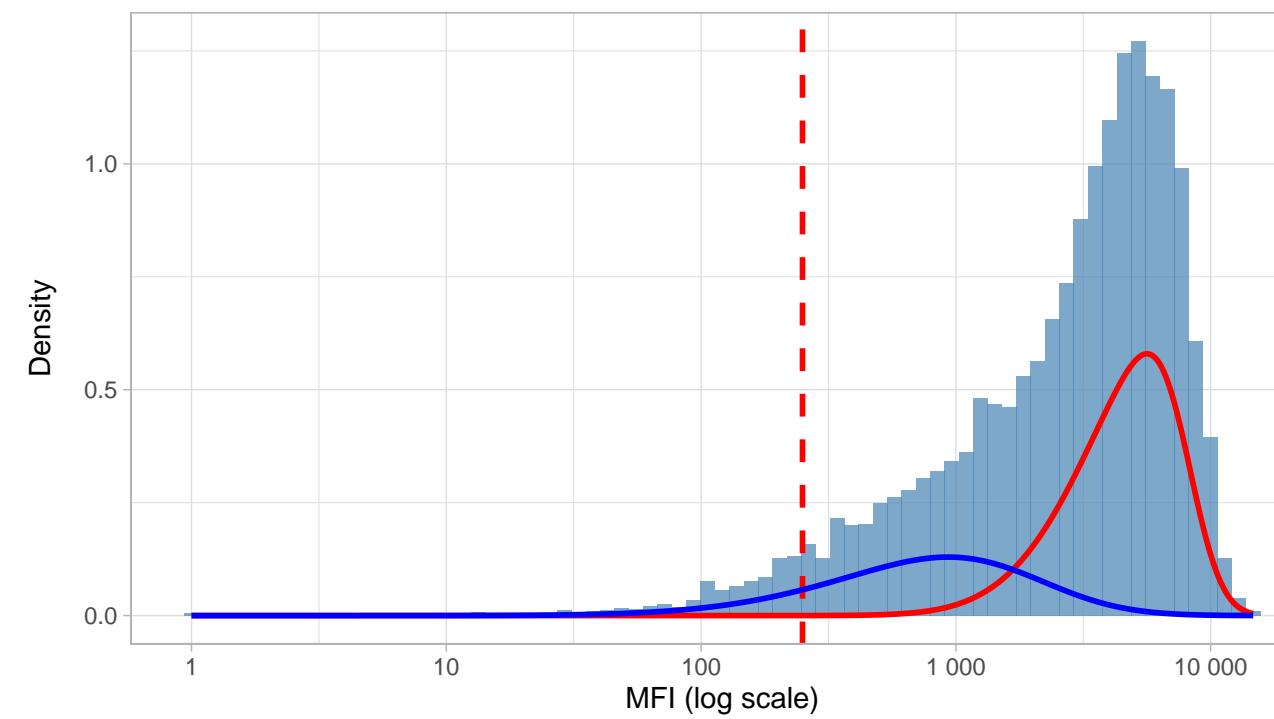
PC1\_assay\_noise  
PC1\_seropositive

# Diagnostics: bkv\_vp1

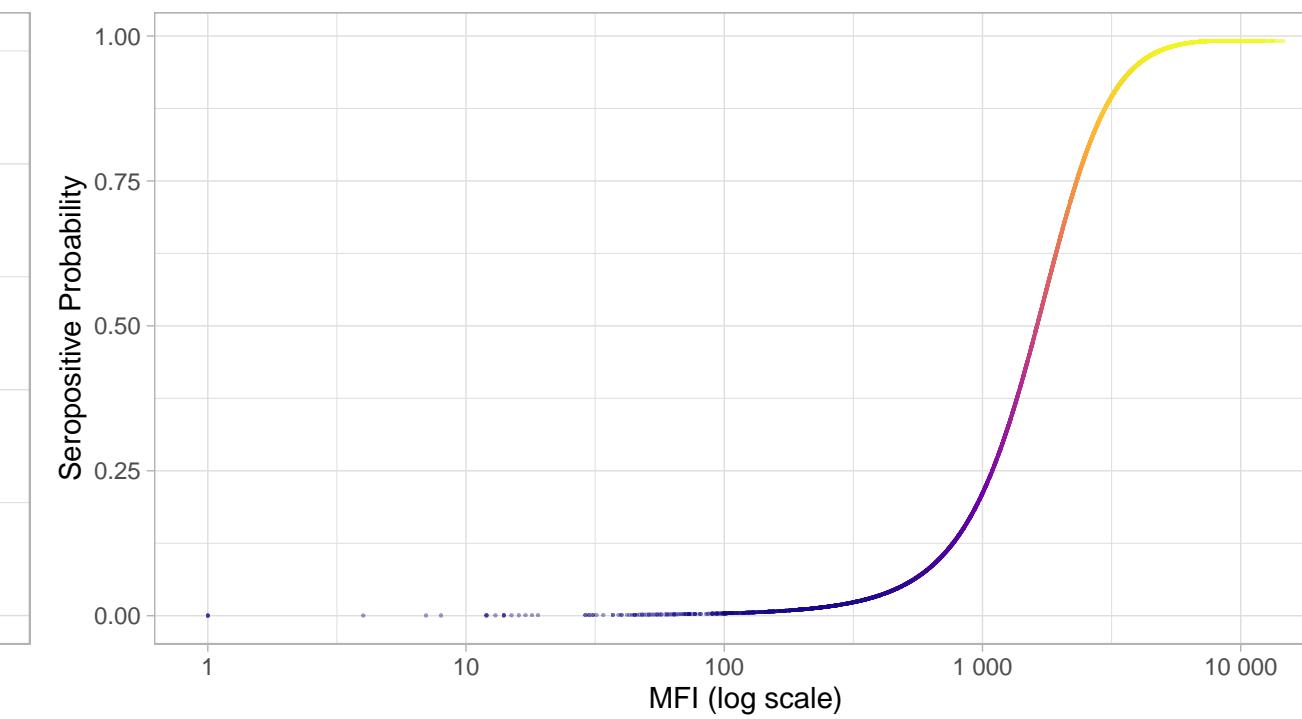
N=9424 | >0.95=4129 | <0.05=932 | Ambig=4363

Original MFI Distribution: bkv\_vp1

Hard cutoff threshold = 250

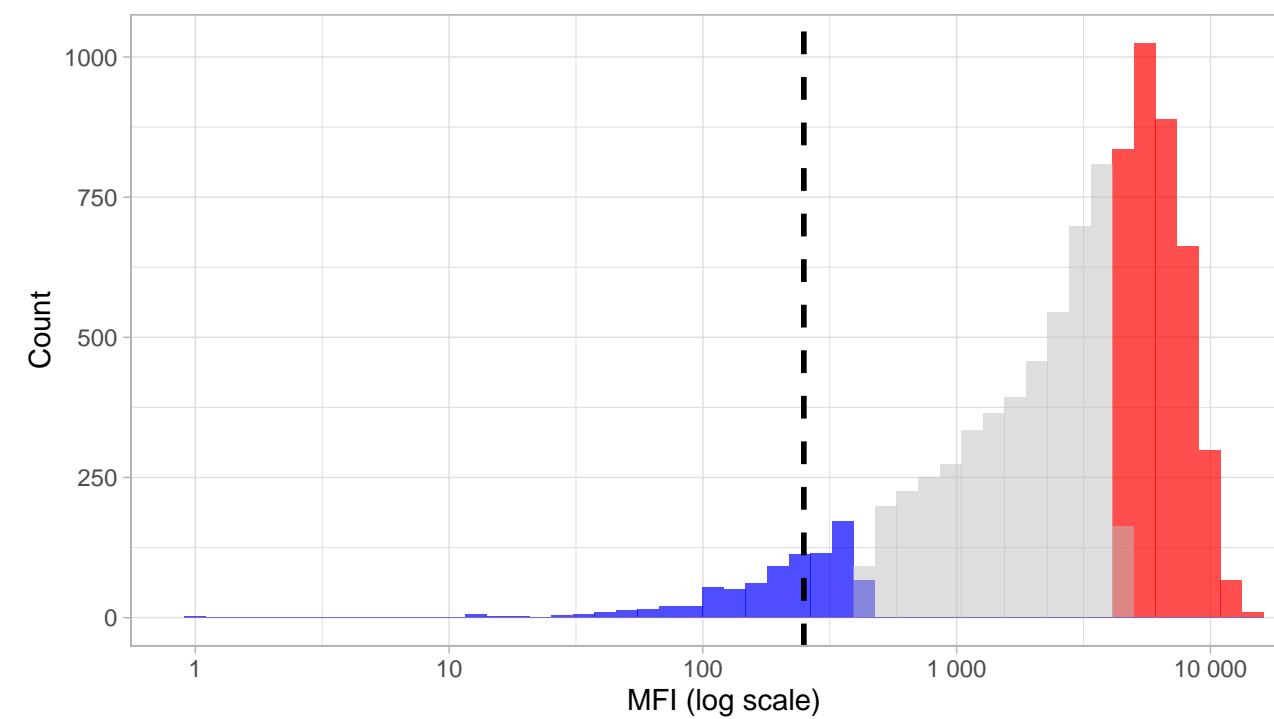


IgG vs Seropositive Probability: bkv\_vp1



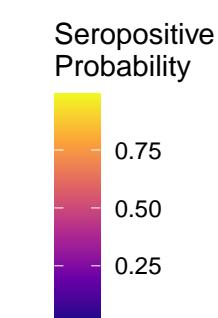
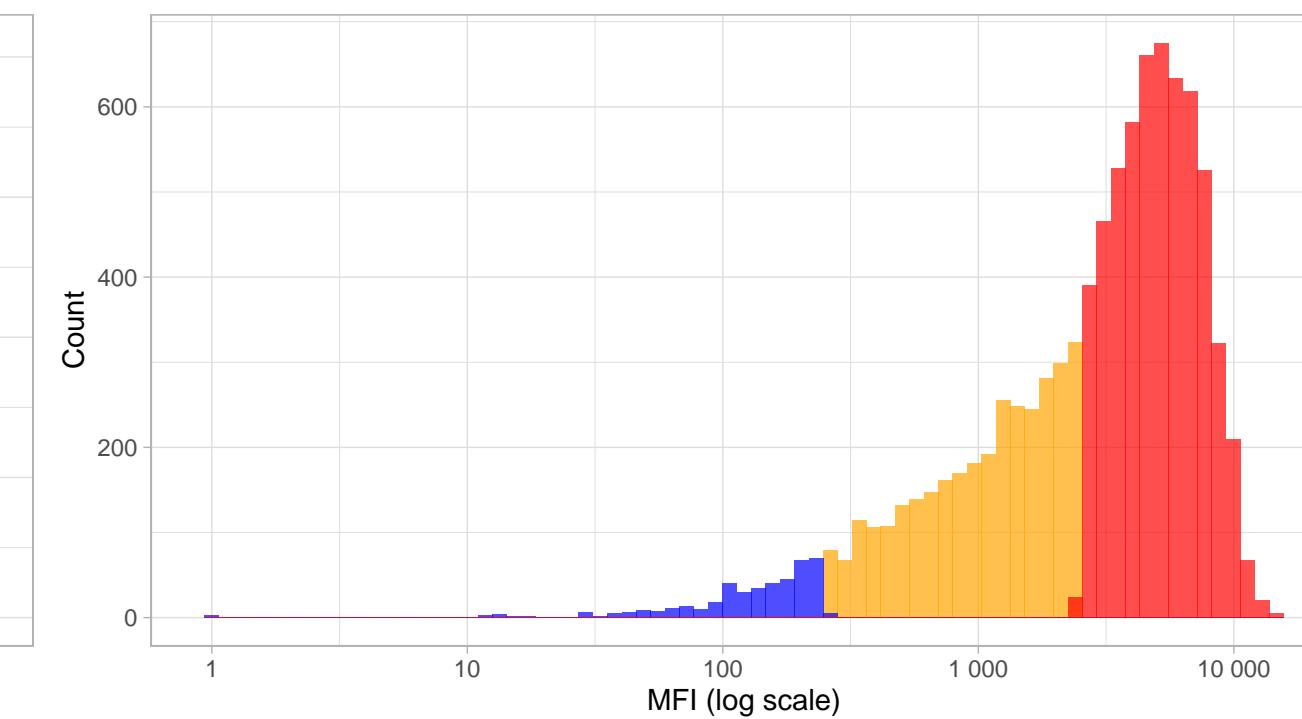
High-Confidence Seropositive Distribution: bkv\_vp1

Prob threshold = 0.96



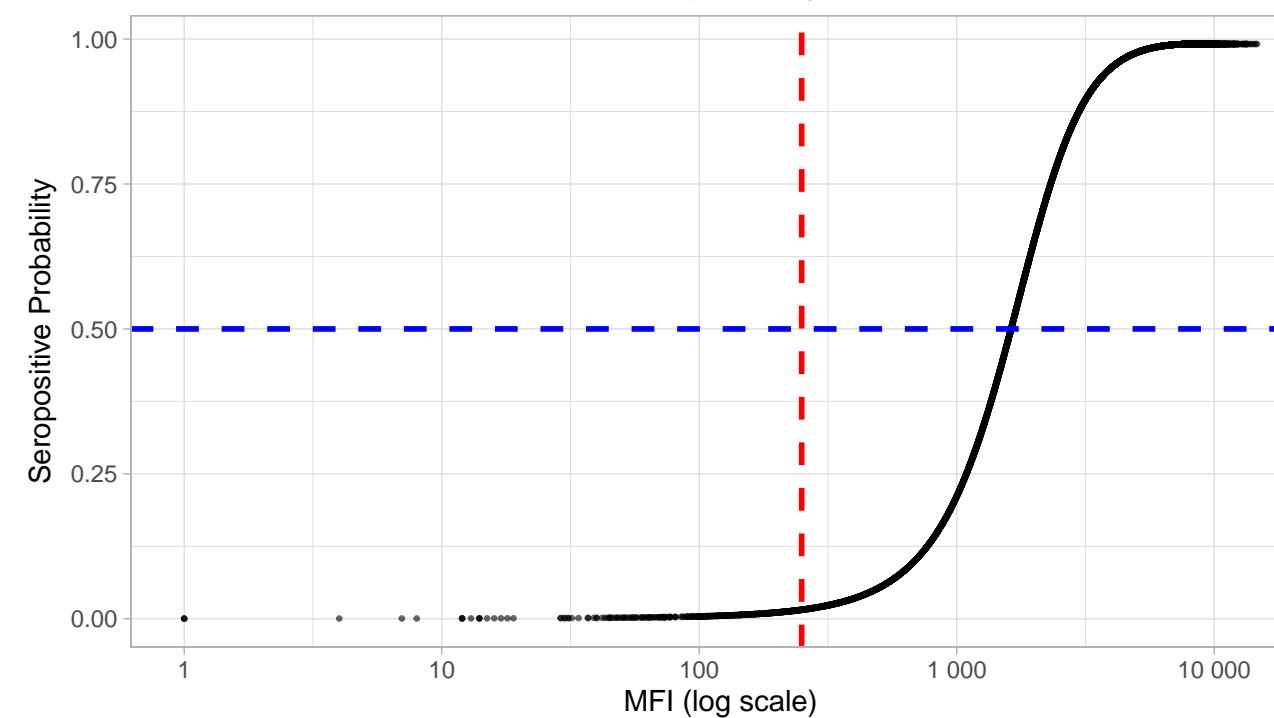
Phenotype Distribution by Classification: bkv\_vp1

Comparing hard vs soft classifications



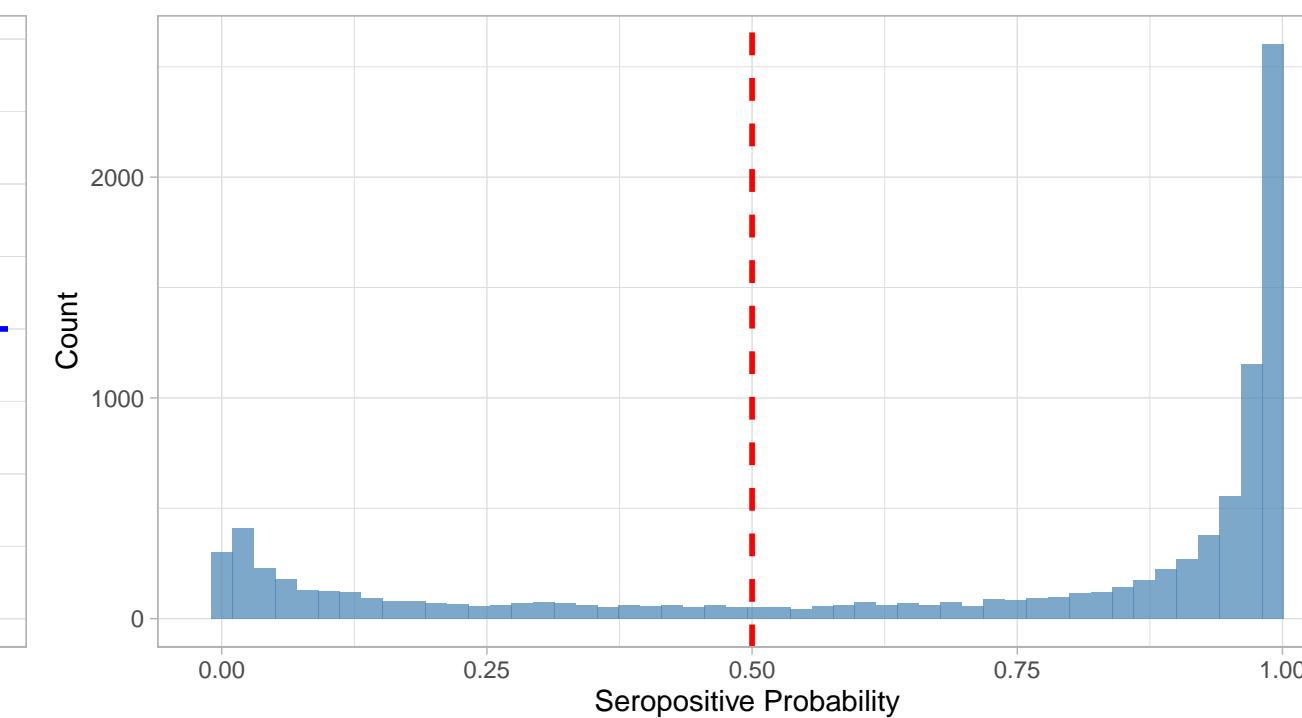
IgG Level vs Seropositive Probability: bkv\_vp1

Red line = hard threshold, Blue line = 50% probability



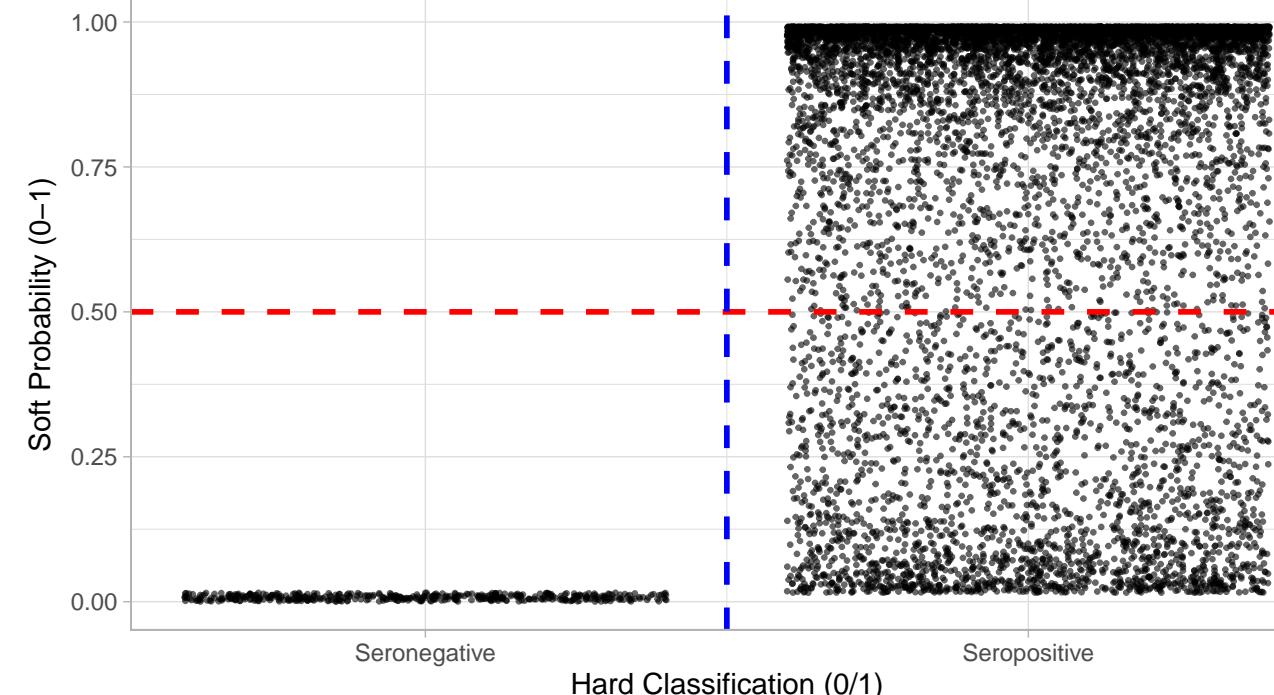
Distribution of Seropositive Probabilities: bkv\_vp1

Red line = 50% threshold



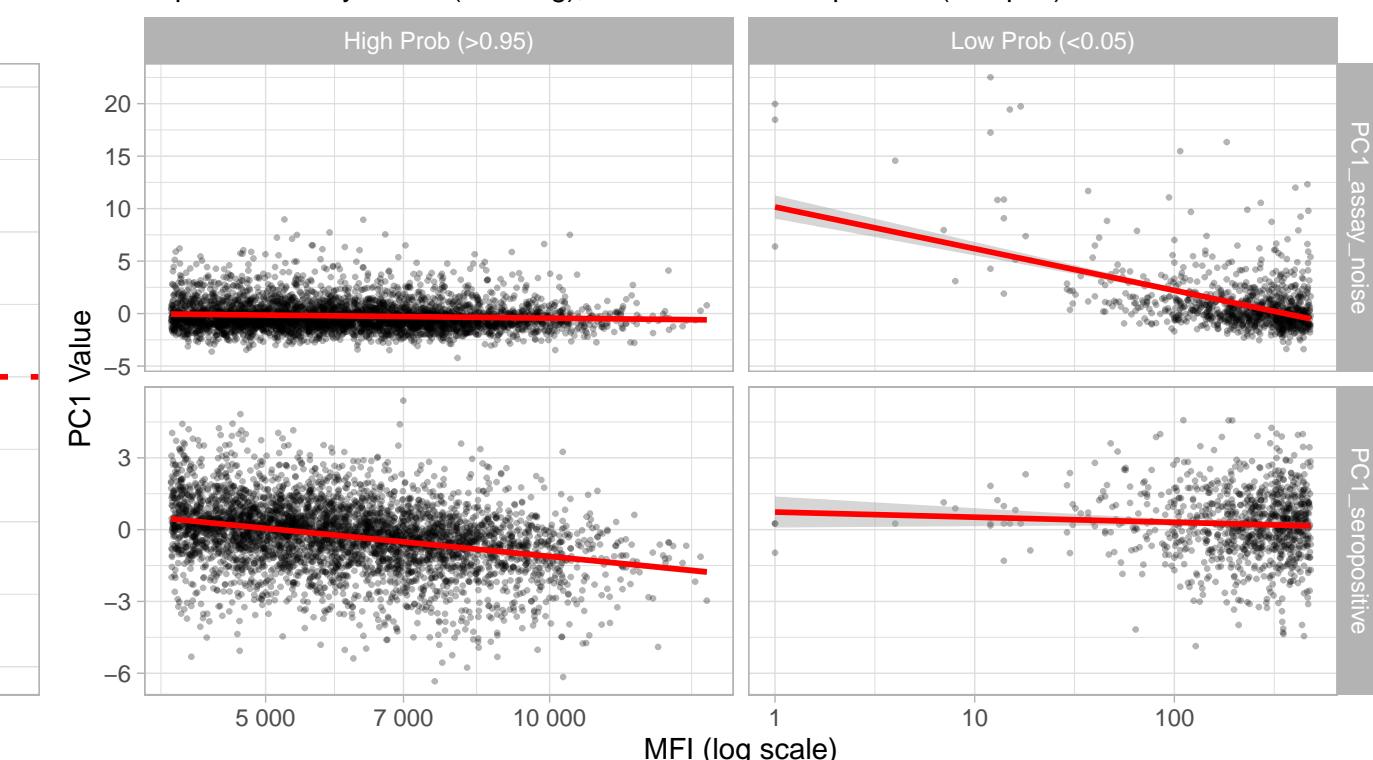
Hard vs Soft Classification: bkv\_vp1

Red line = 50% soft threshold, Blue line = hard threshold



PC1 Components vs IgG Level: bkv\_vp1

Top: PC1\_assay\_noise (seroneg), Bottom: PC1\_seropositive (seropos)

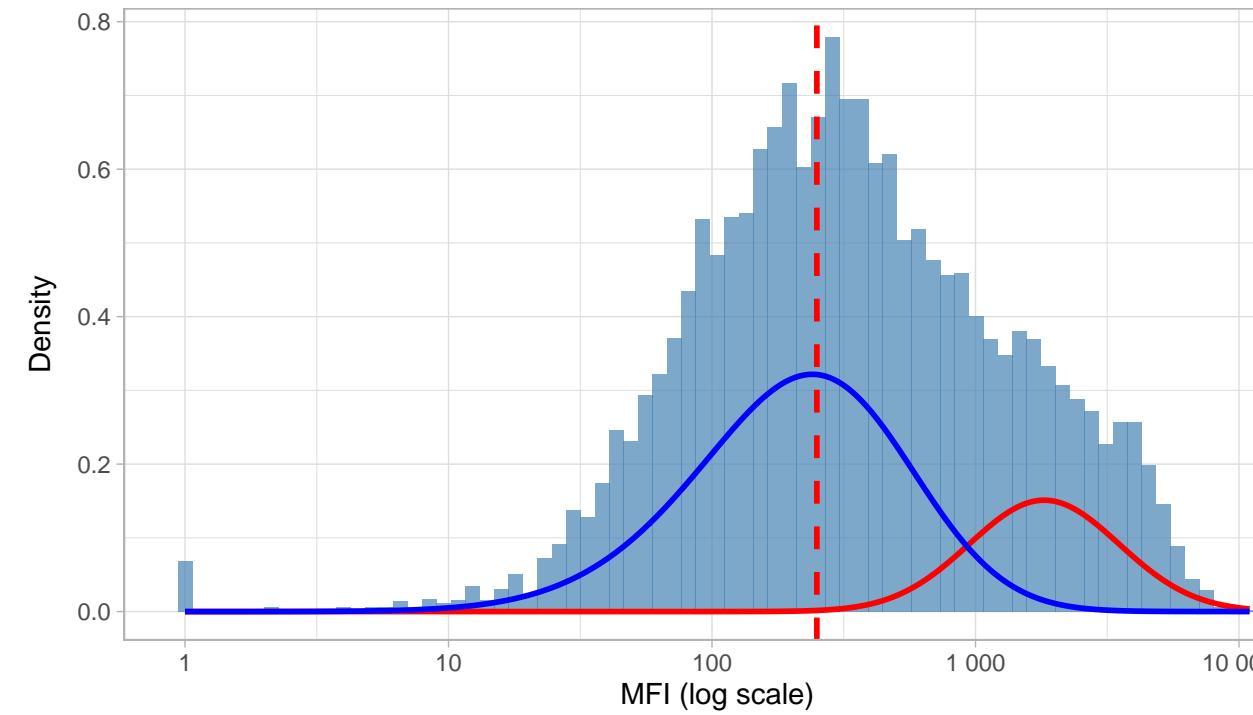


# Diagnostics: jcv\_vp1

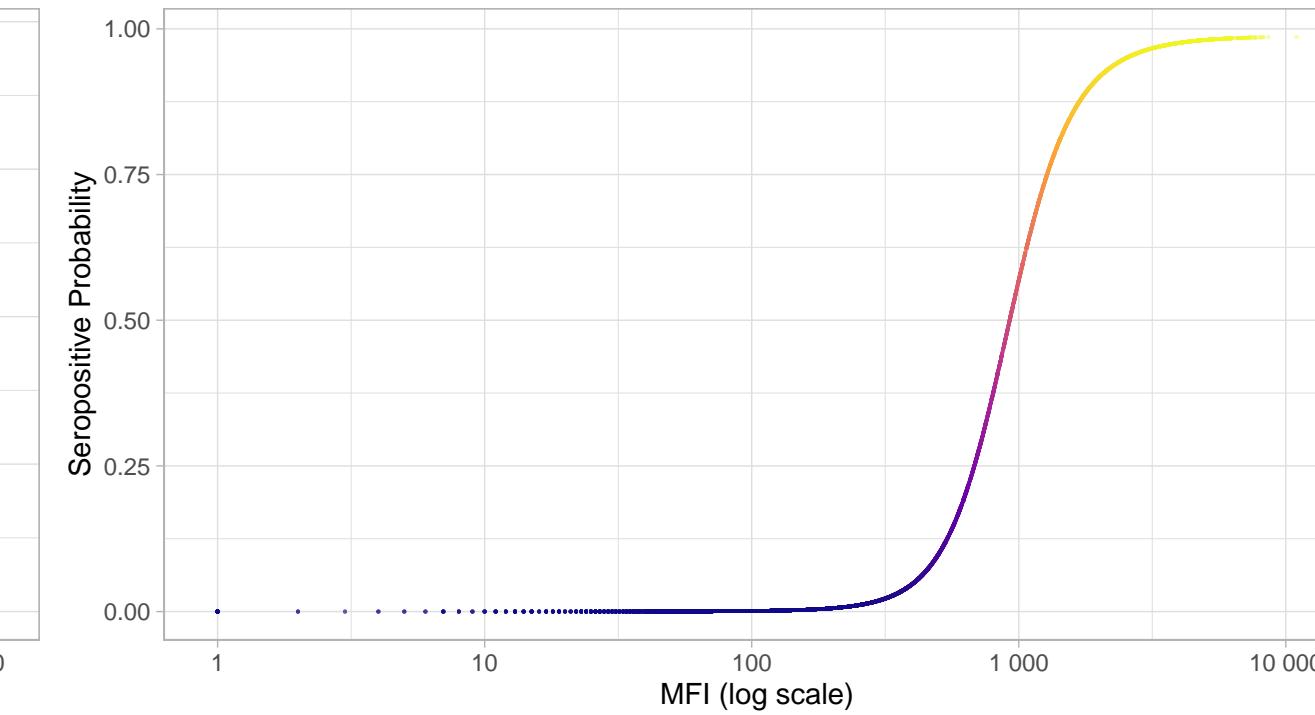
N=9424 | >0.95=824 | <0.05=5408 | Ambig=3192

Original MFI Distribution: jcv\_vp1

Hard cutoff threshold = 250

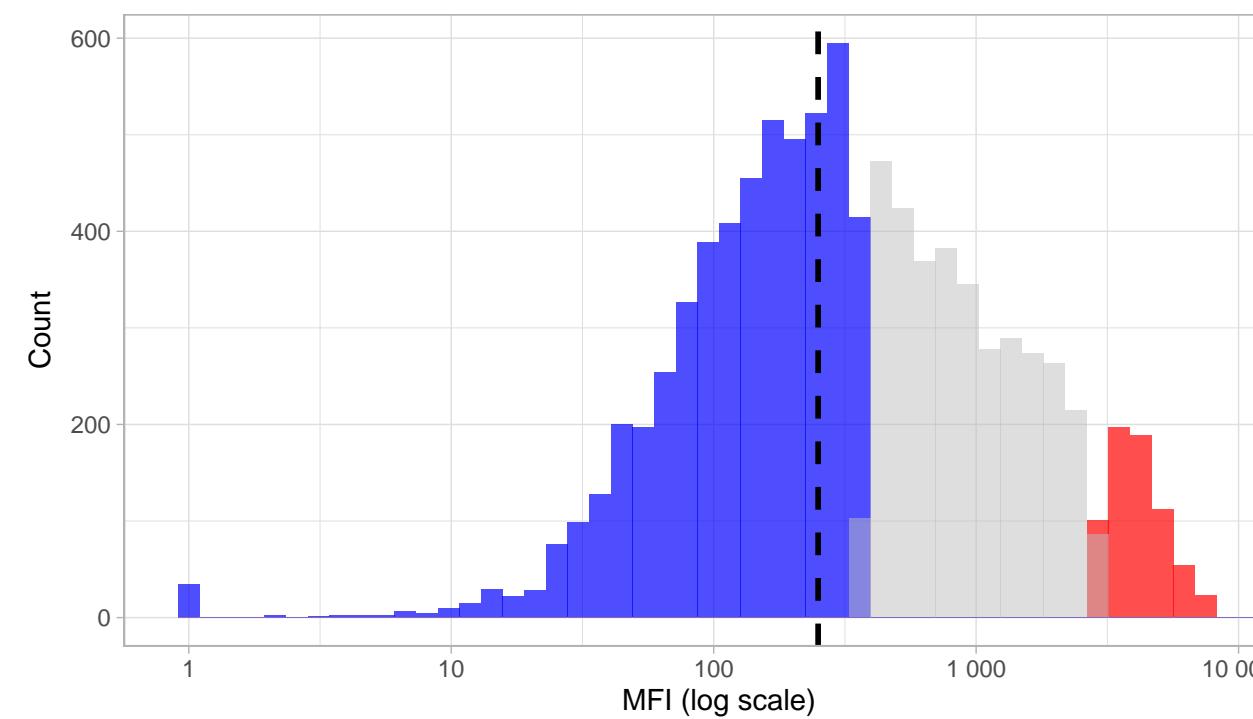


IgG vs Seropositive Probability: jcv\_vp1



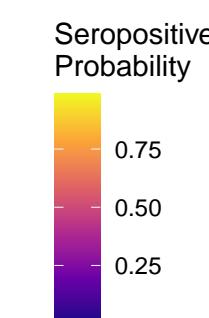
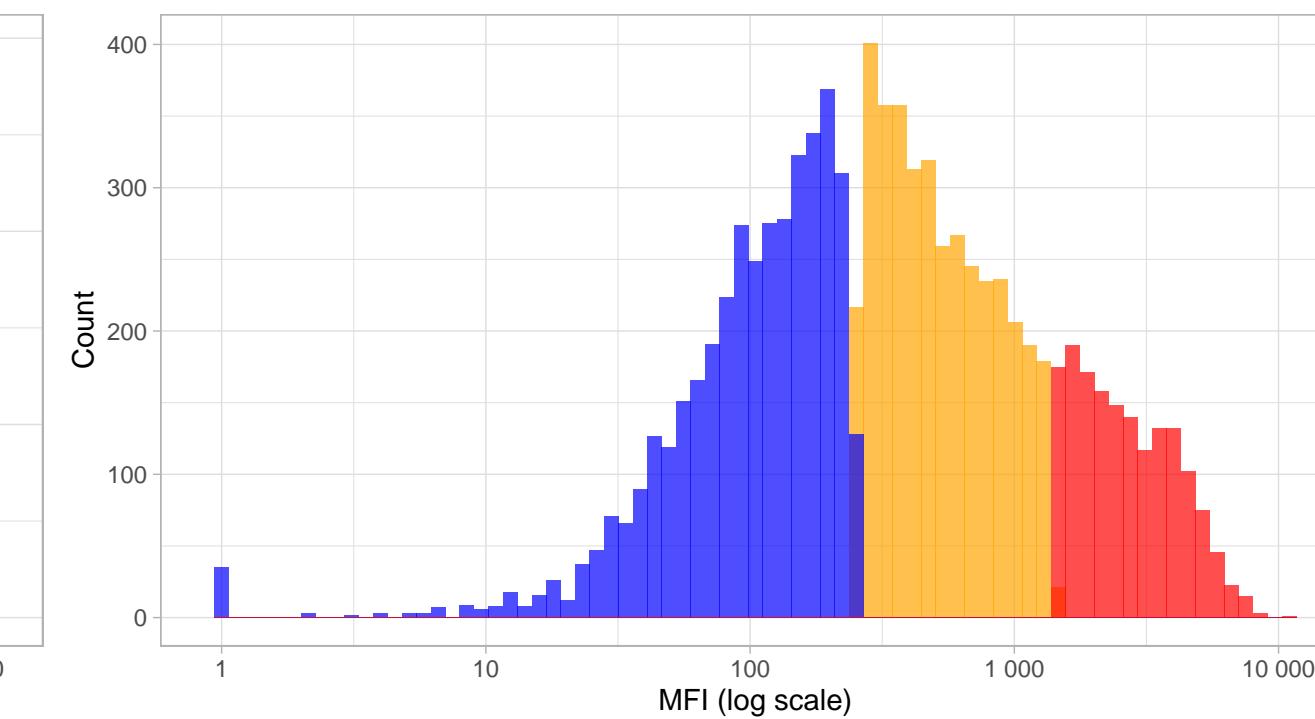
High-Confidence Seropositive Distribution: jcv\_vp1

Prob threshold = 0.96



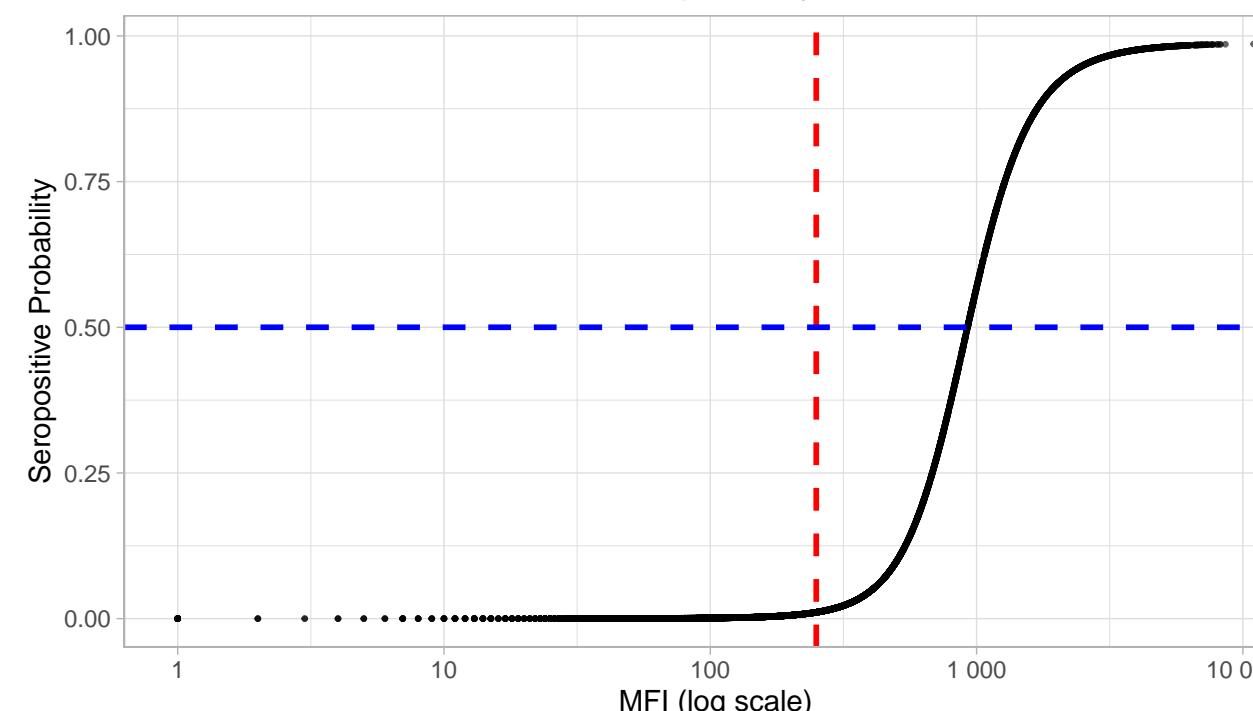
Phenotype Distribution by Classification: jcv\_vp1

Comparing hard vs soft classifications



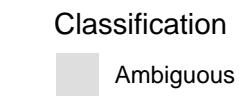
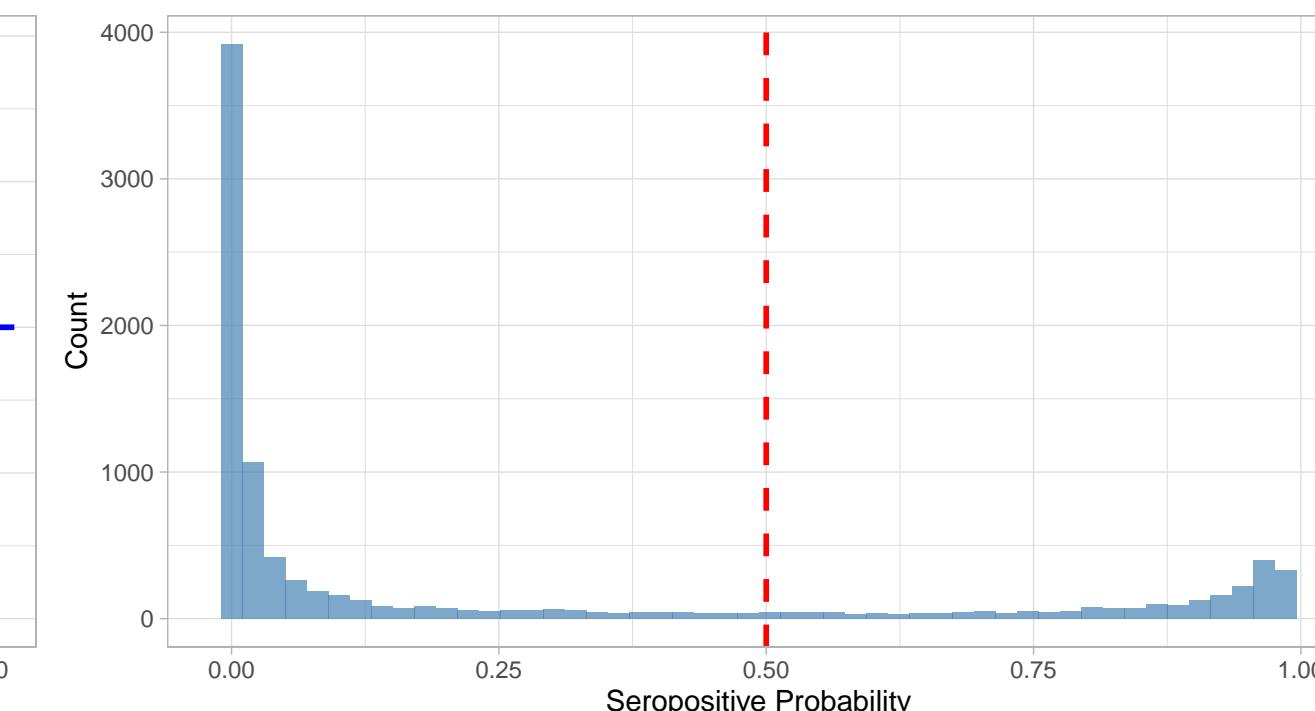
IgG Level vs Seropositive Probability: jcv\_vp1

Red line = hard threshold, Blue line = 50% probability



Distribution of Seropositive Probabilities: jcv\_vp1

Red line = 50% threshold



Classification

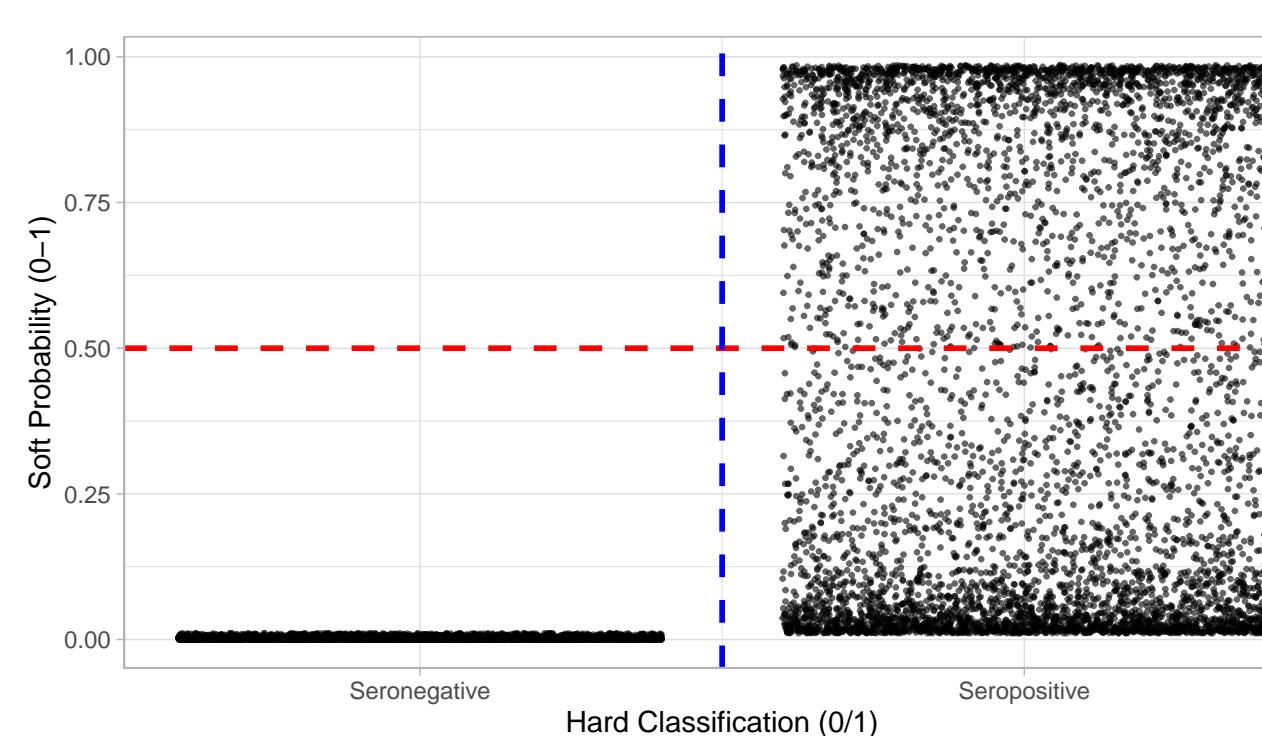
Ambiguous

High-conf Seronegative

High-conf Seropositive

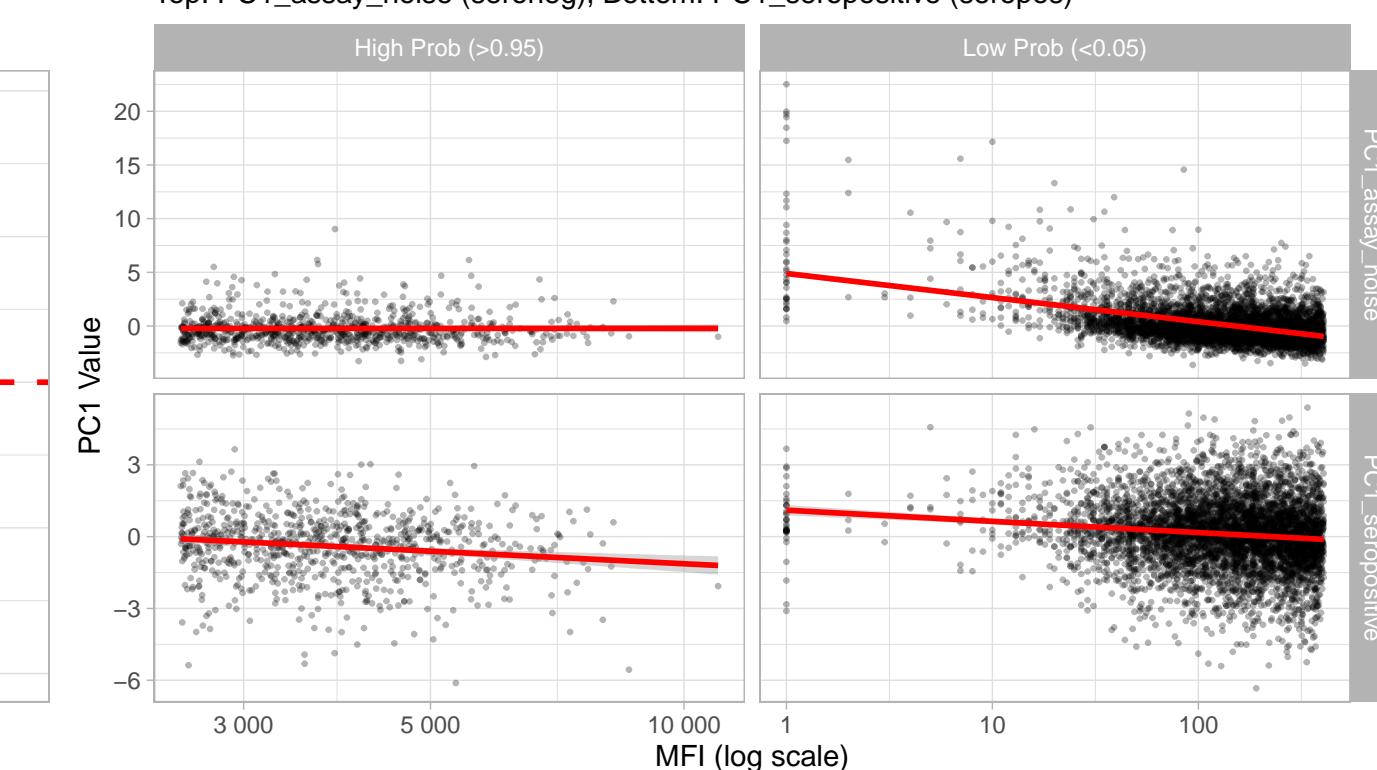
Hard vs Soft Classification: jcv\_vp1

Red line = 50% soft threshold, Blue line = hard threshold



PC1 Components vs IgG Level: jcv\_vp1

Top: PC1\_assay\_noise (seroneg), Bottom: PC1\_seropositive (seropos)

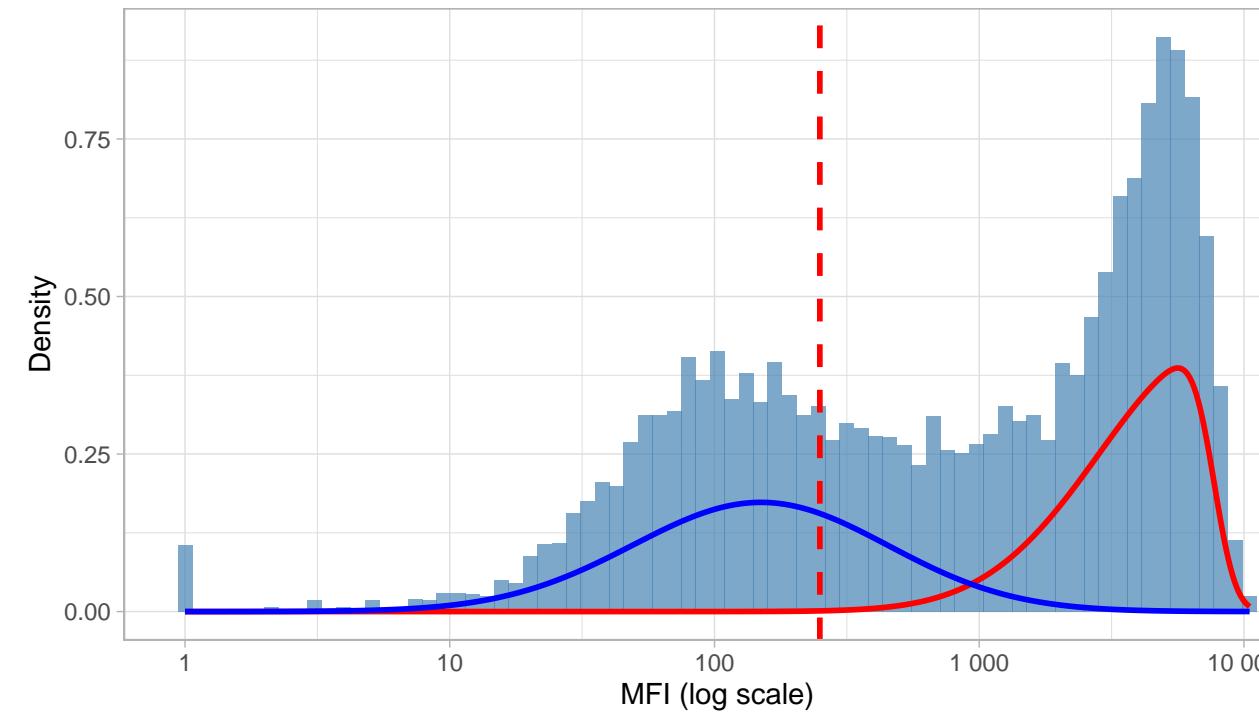


# Diagnostics: mcv\_vp1

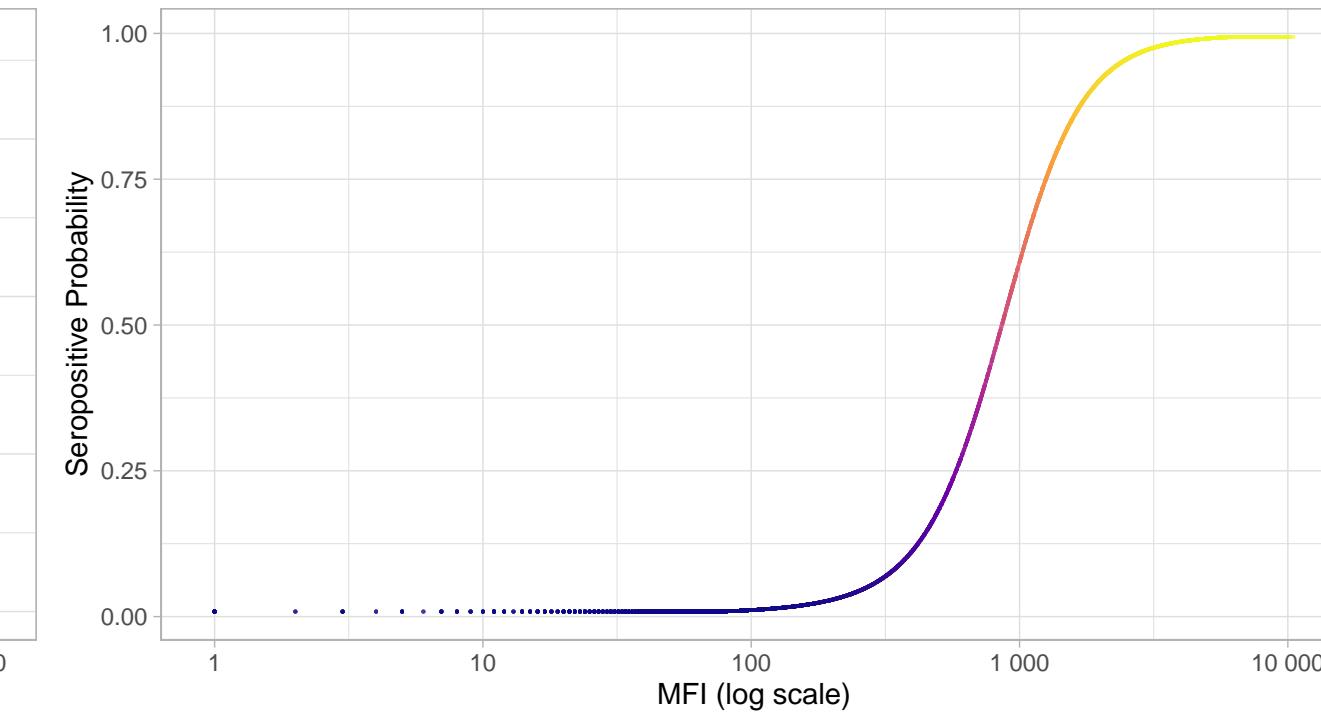
N=9424 | >0.95=3584 | <0.05=3249 | Ambig=2591

Original MFI Distribution: mcv\_vp1

Hard cutoff threshold = 250

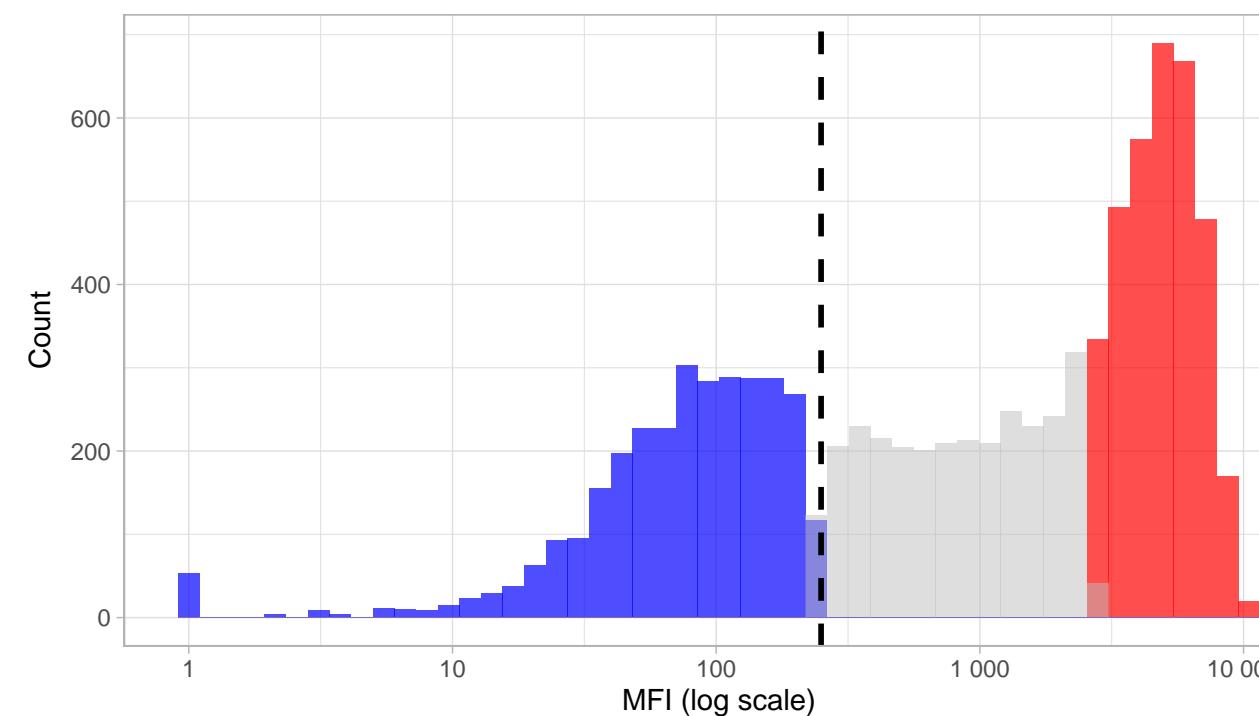


IgG vs Seropositive Probability: mcv\_vp1



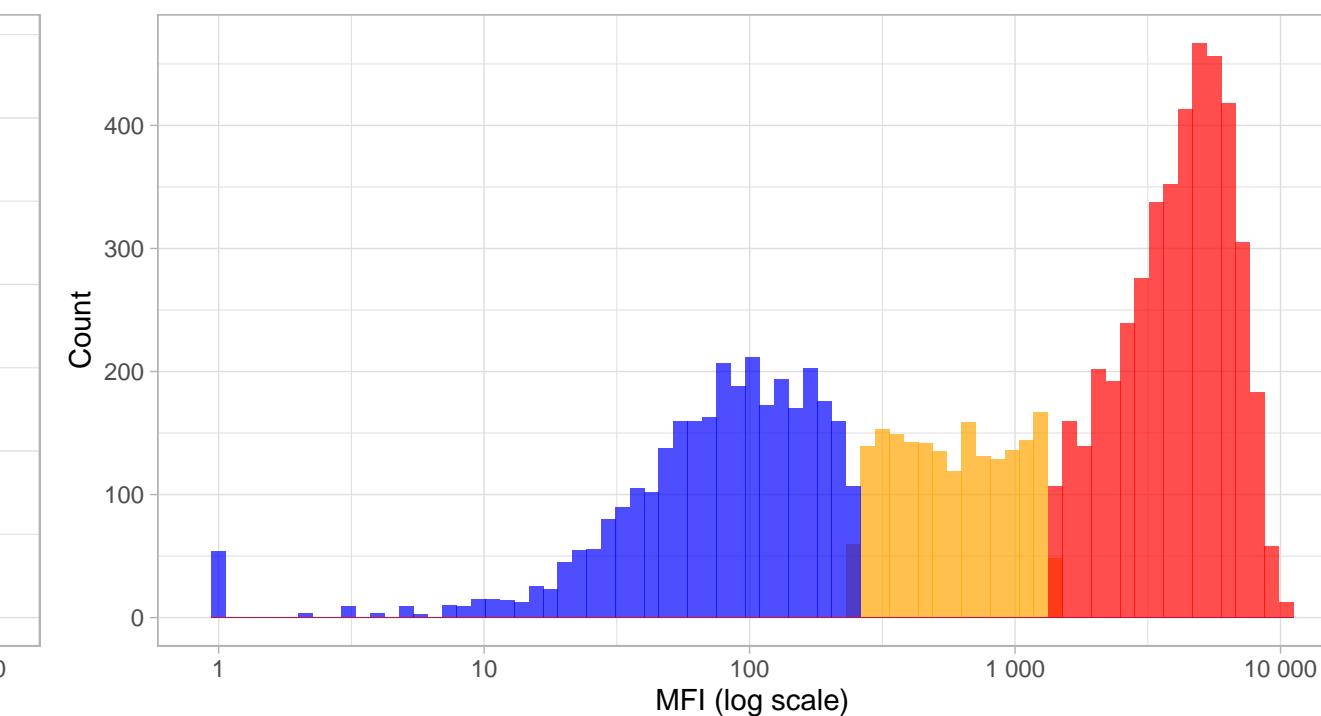
High-Confidence Seropositive Distribution: mcv\_vp1

Prob threshold = 0.96



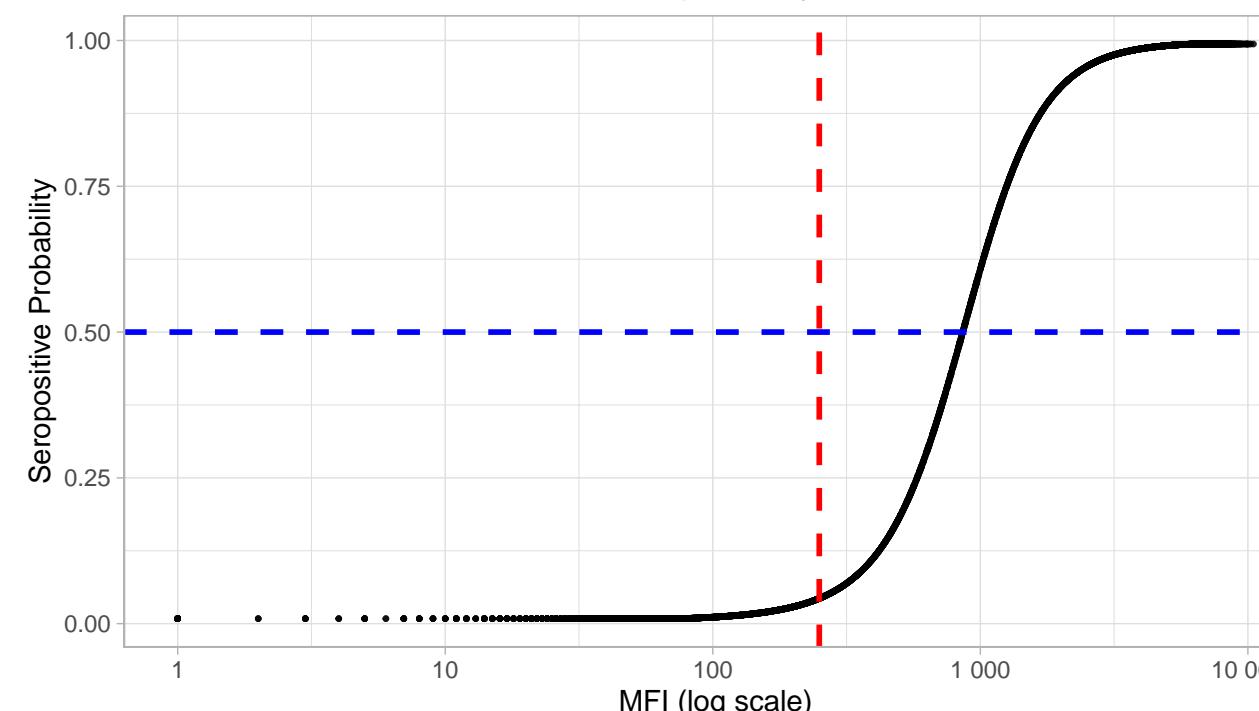
Phenotype Distribution by Classification: mcv\_vp1

Comparing hard vs soft classifications



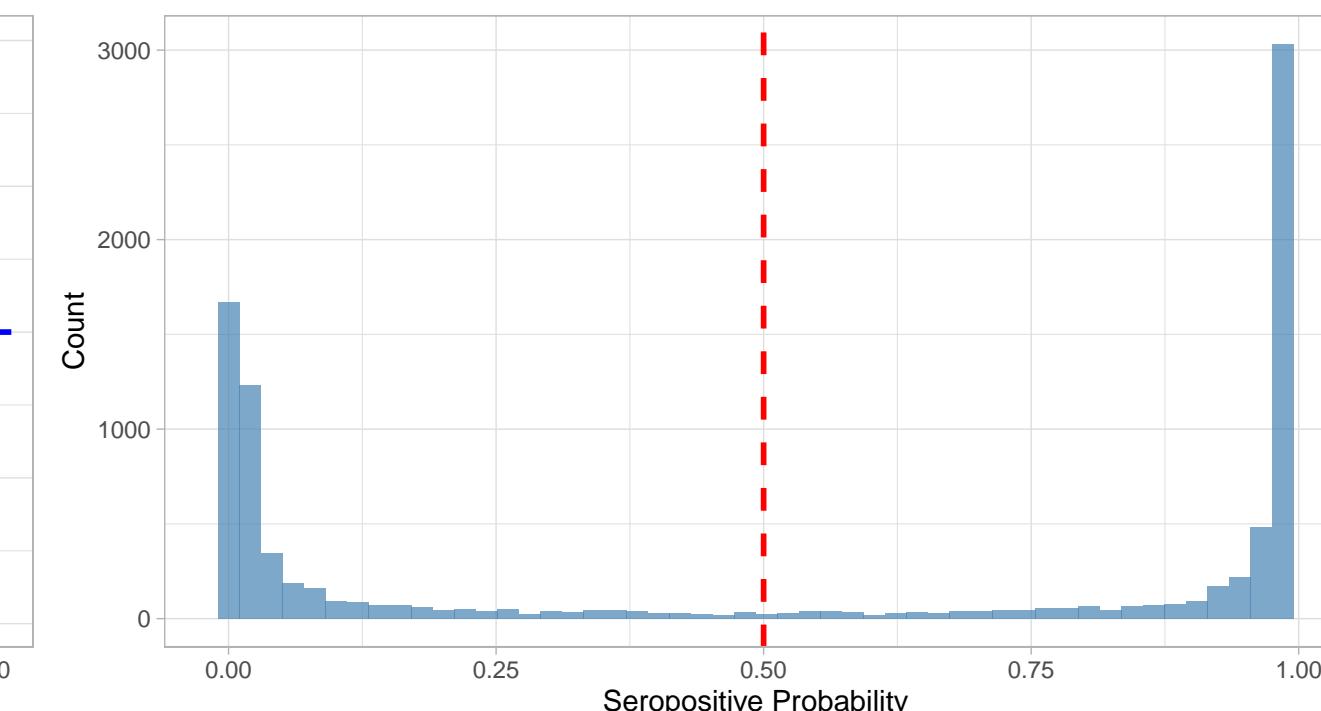
IgG Level vs Seropositive Probability: mcv\_vp1

Red line = hard threshold, Blue line = 50% probability



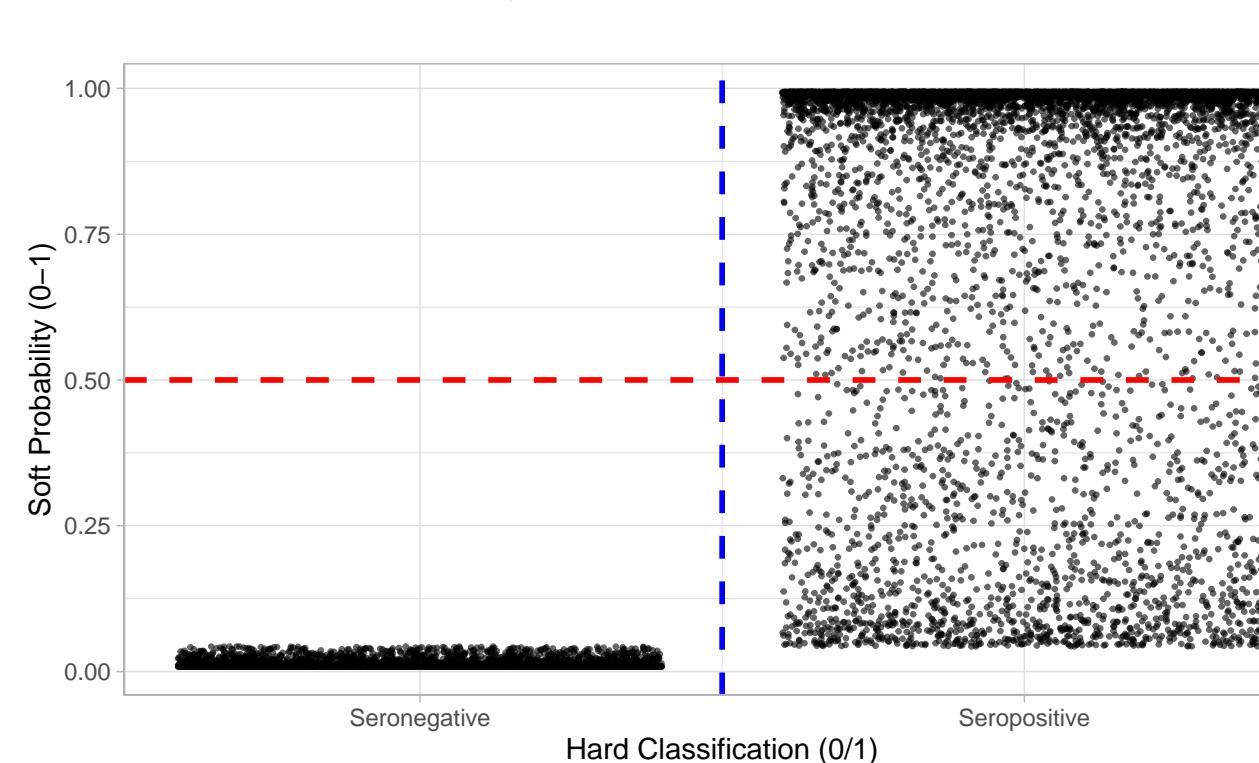
Distribution of Seropositive Probabilities: mcv\_vp1

Red line = 50% threshold



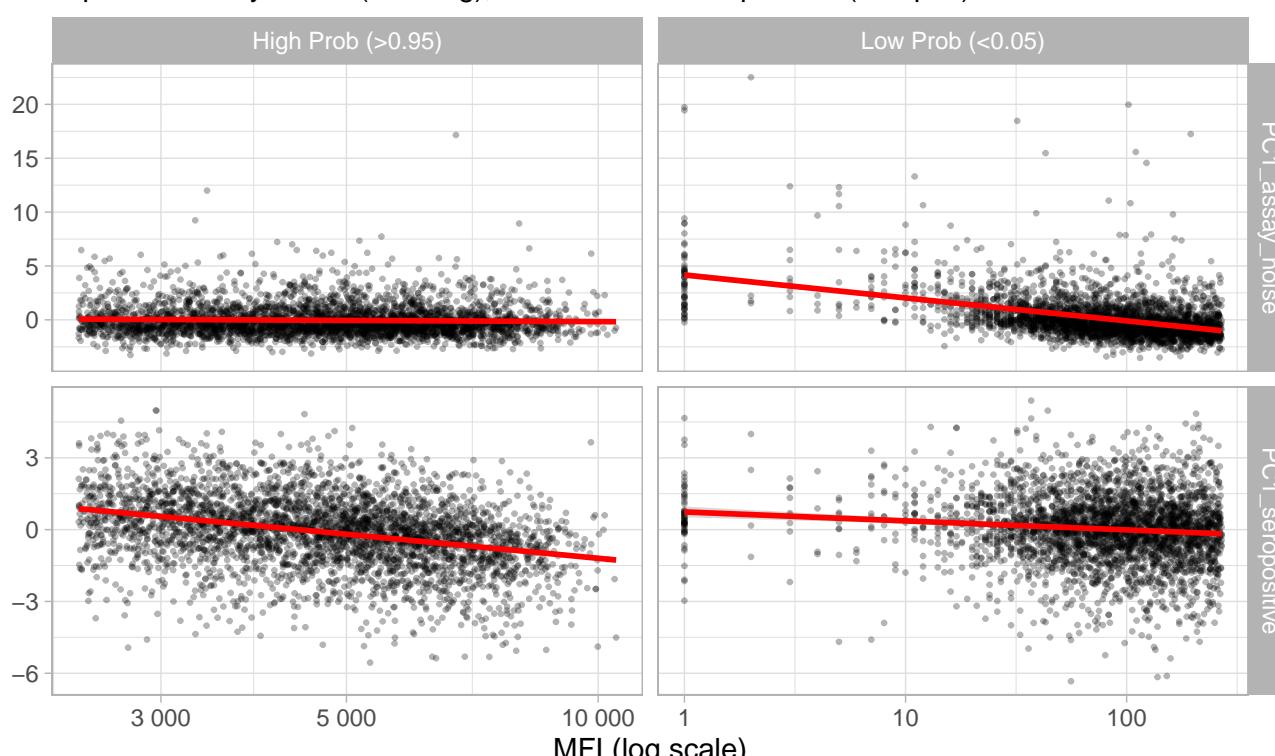
Hard vs Soft Classification: mcv\_vp1

Red line = 50% soft threshold, Blue line = hard threshold



PC1 Components vs IgG Level: mcv\_vp1

Top: PC1\_assay\_noise (seroneg), Bottom: PC1\_seropositive (seropos)

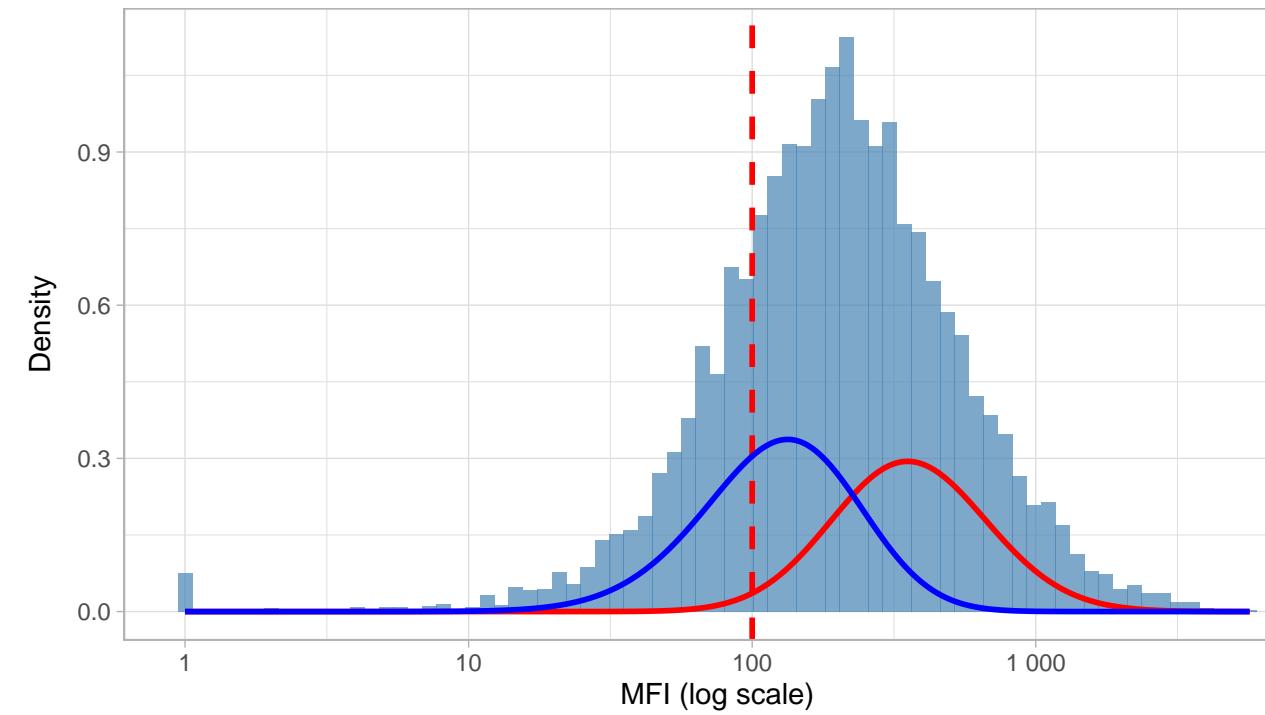


# Diagnostics: hhv6\_ie1a

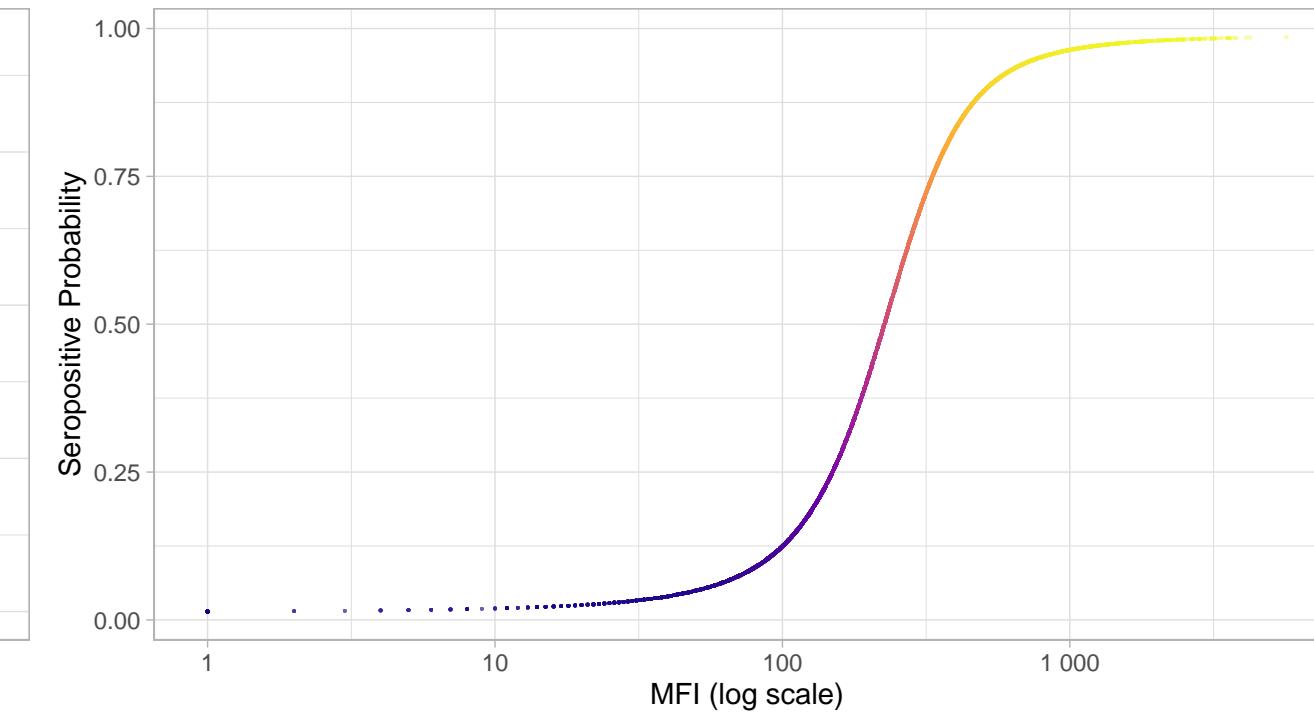
N=9424 | >0.95=718 | <0.05=696 | Ambig=8010

Original MFI Distribution: hhv6\_ie1a

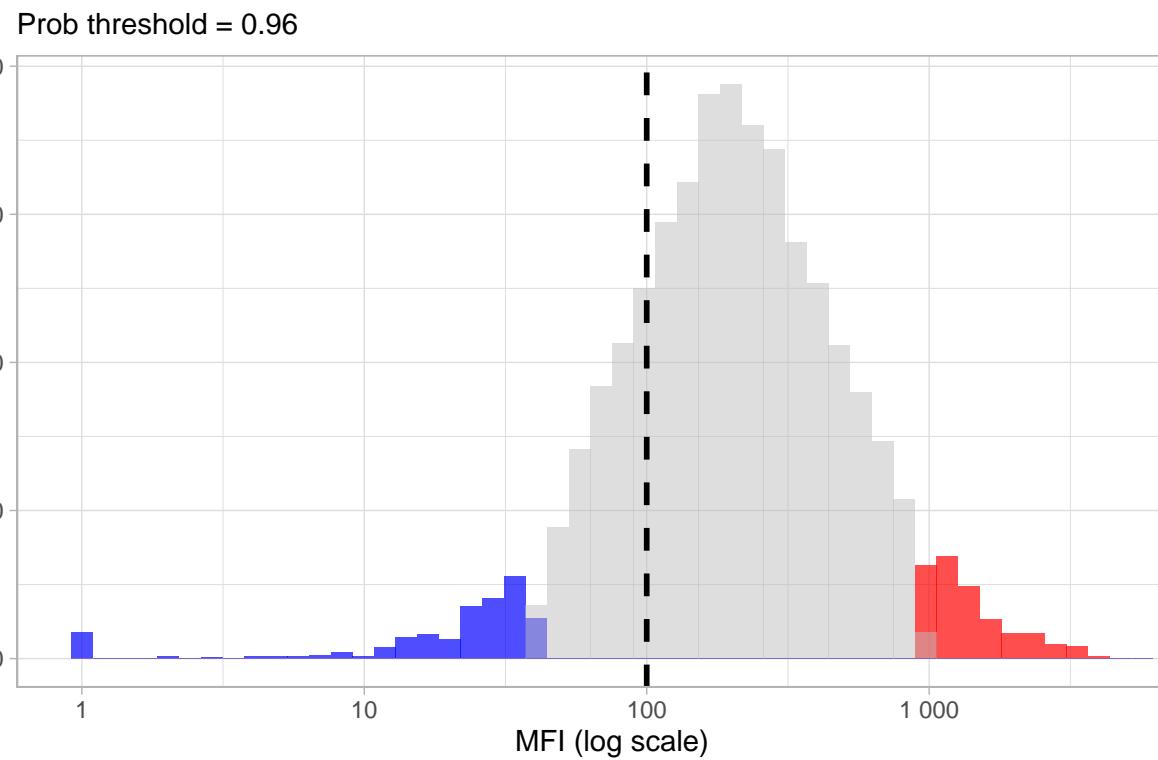
Hard cutoff threshold = 100



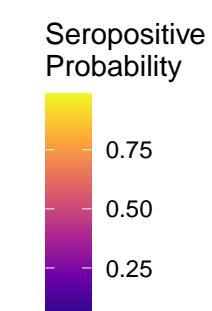
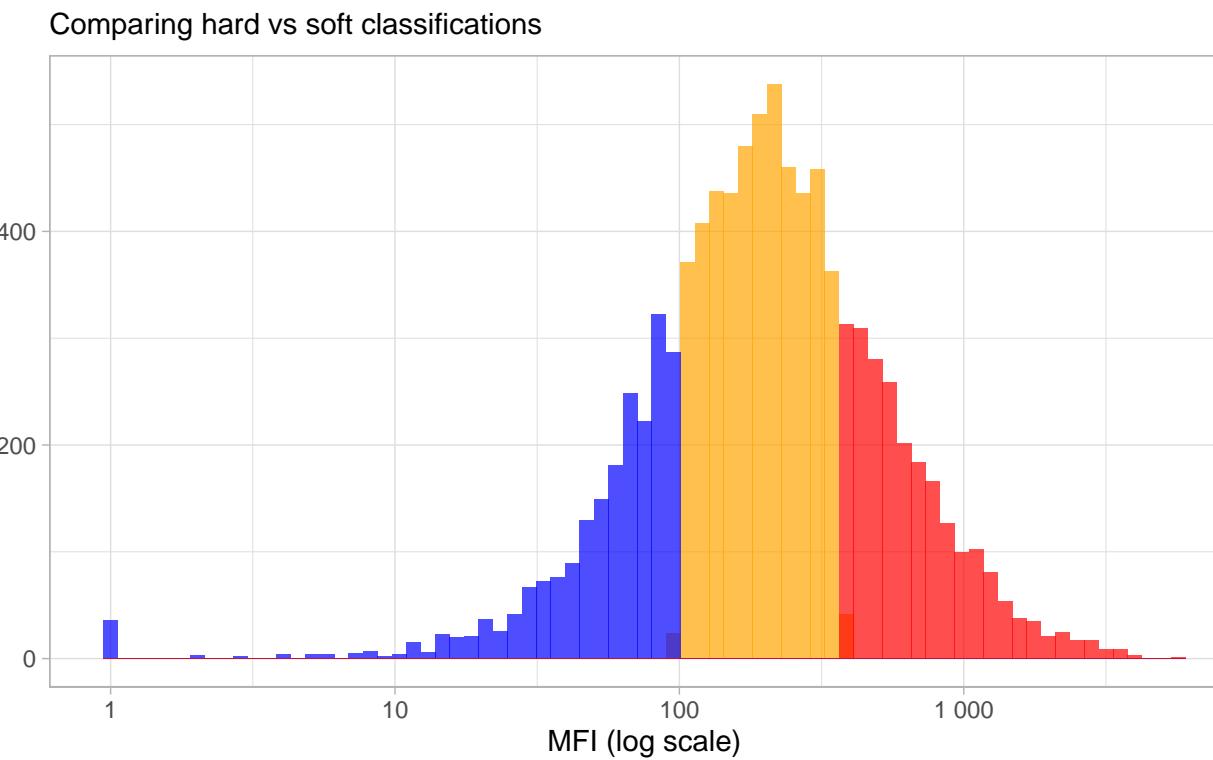
IgG vs Seropositive Probability: hhv6\_ie1a



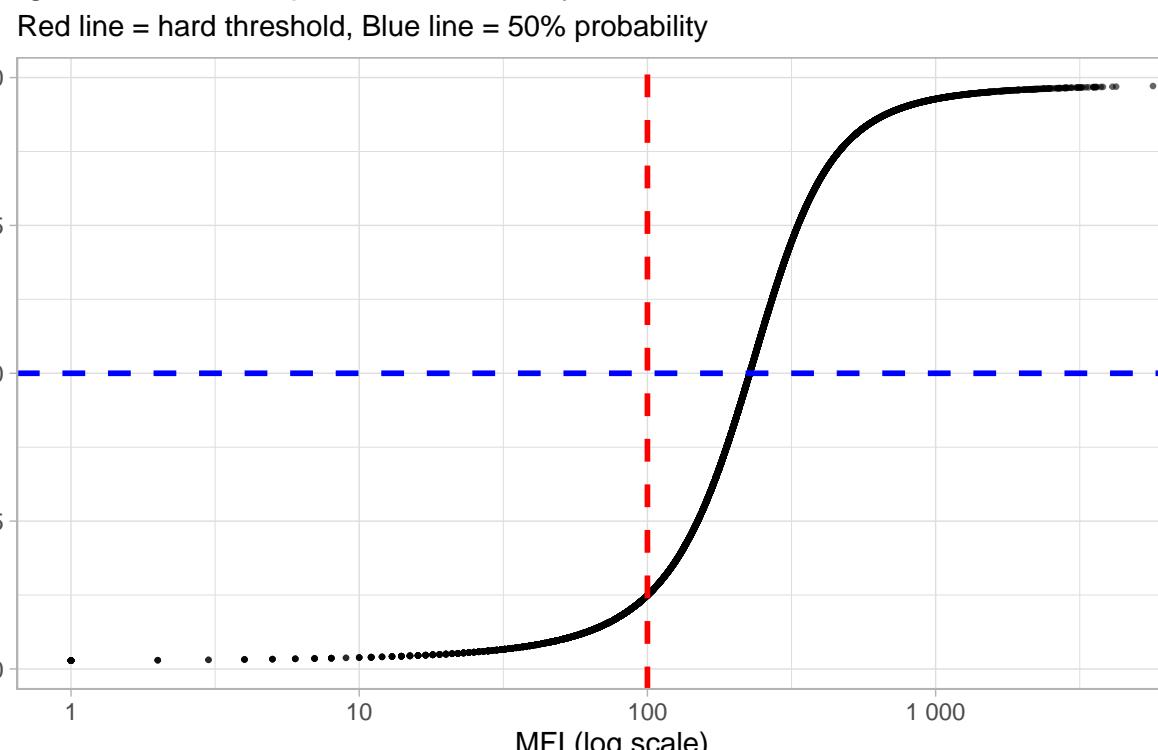
High-Confidence Seropositive Distribution: hhv6\_ie1a



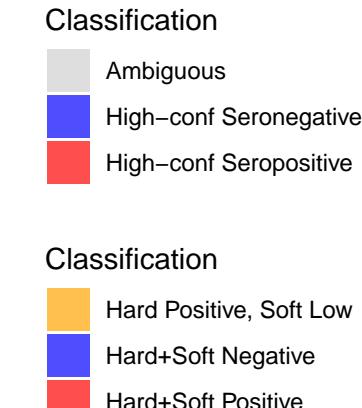
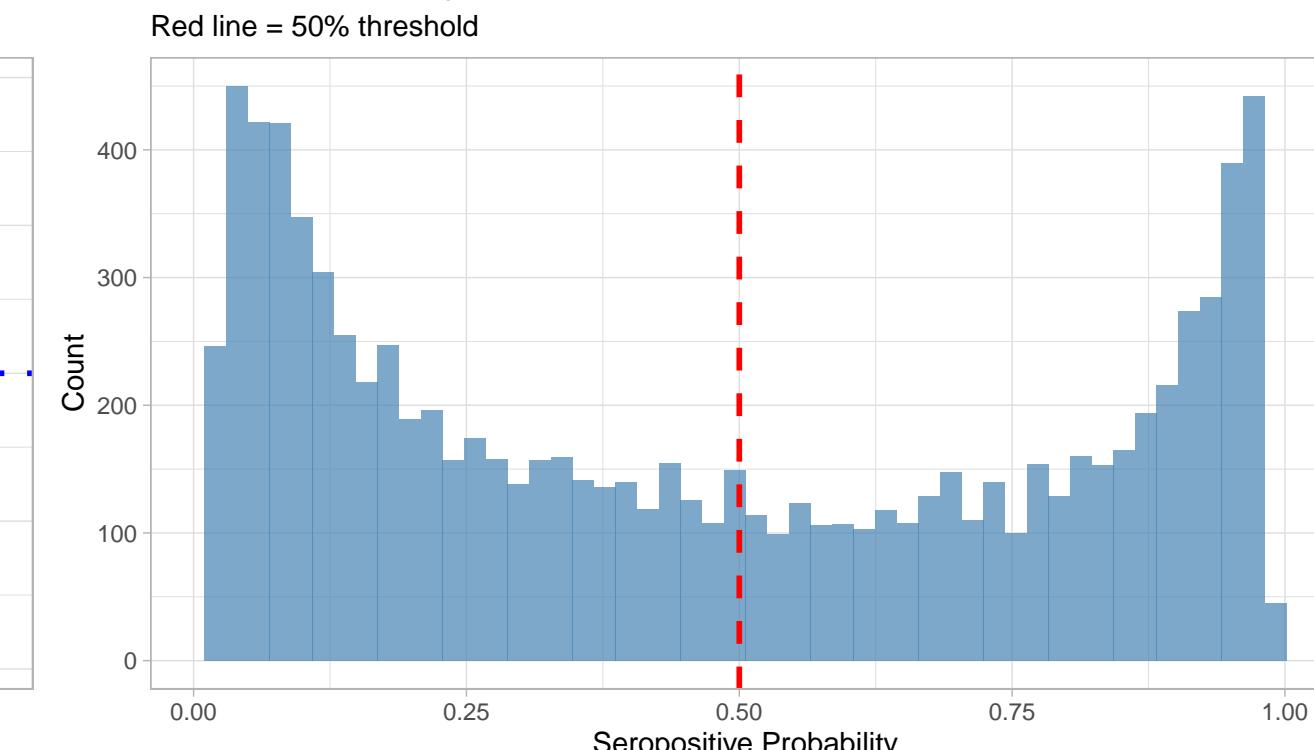
Phenotype Distribution by Classification: hhv6\_ie1a



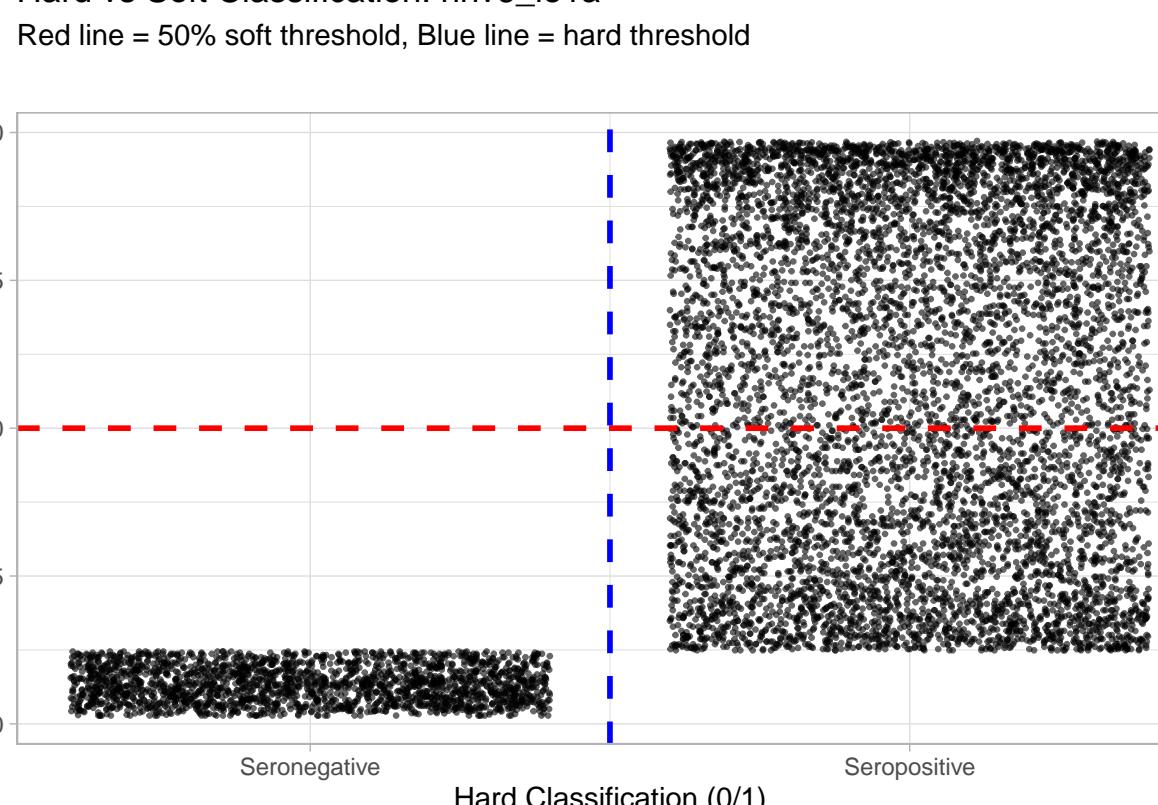
IgG Level vs Seropositive Probability: hhv6\_ie1a



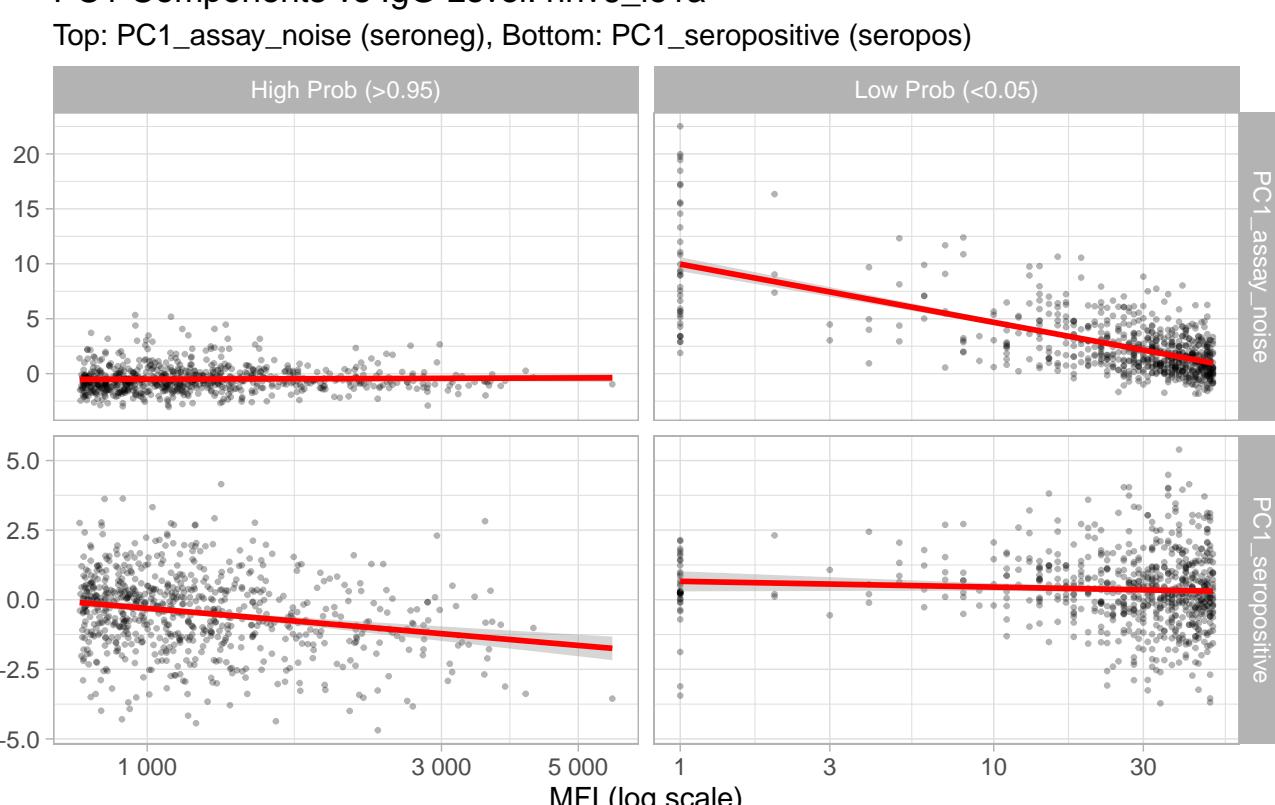
Distribution of Seropositive Probabilities: hhv6\_ie1a



Hard vs Soft Classification: hhv6\_ie1a



PC1 Components vs IgG Level: hhv6\_ie1a

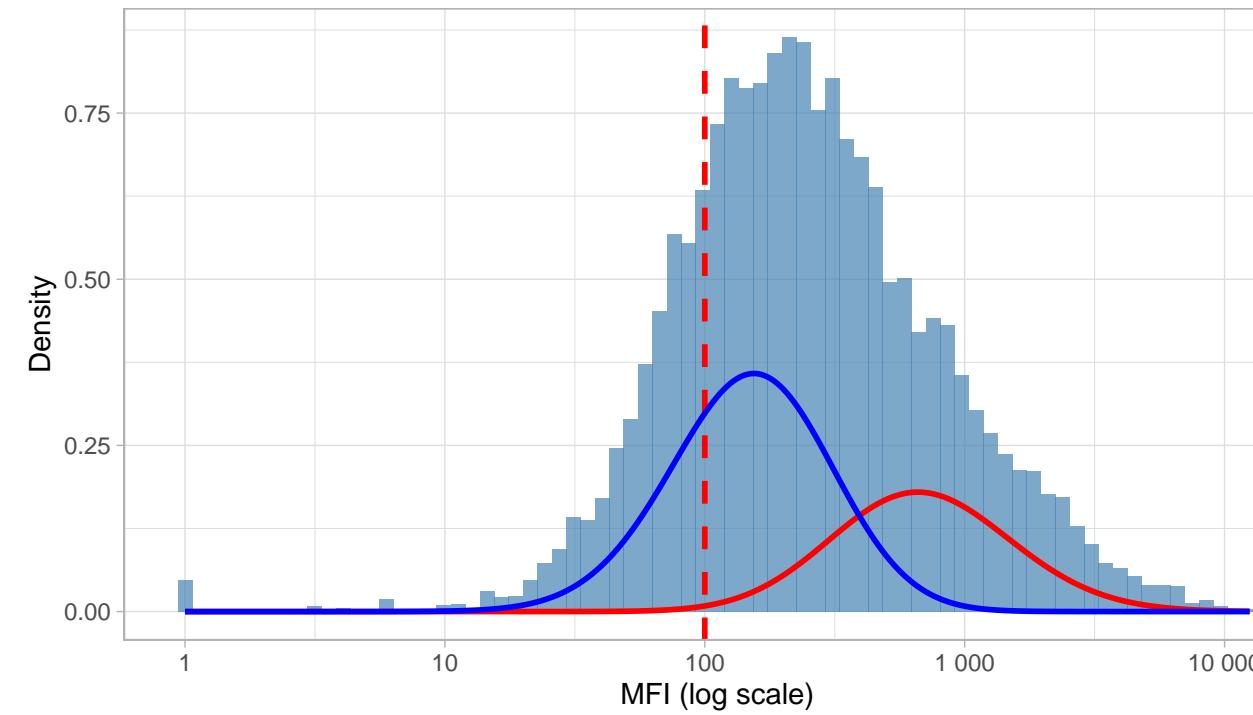


# Diagnostics: hhv6\_ie1b

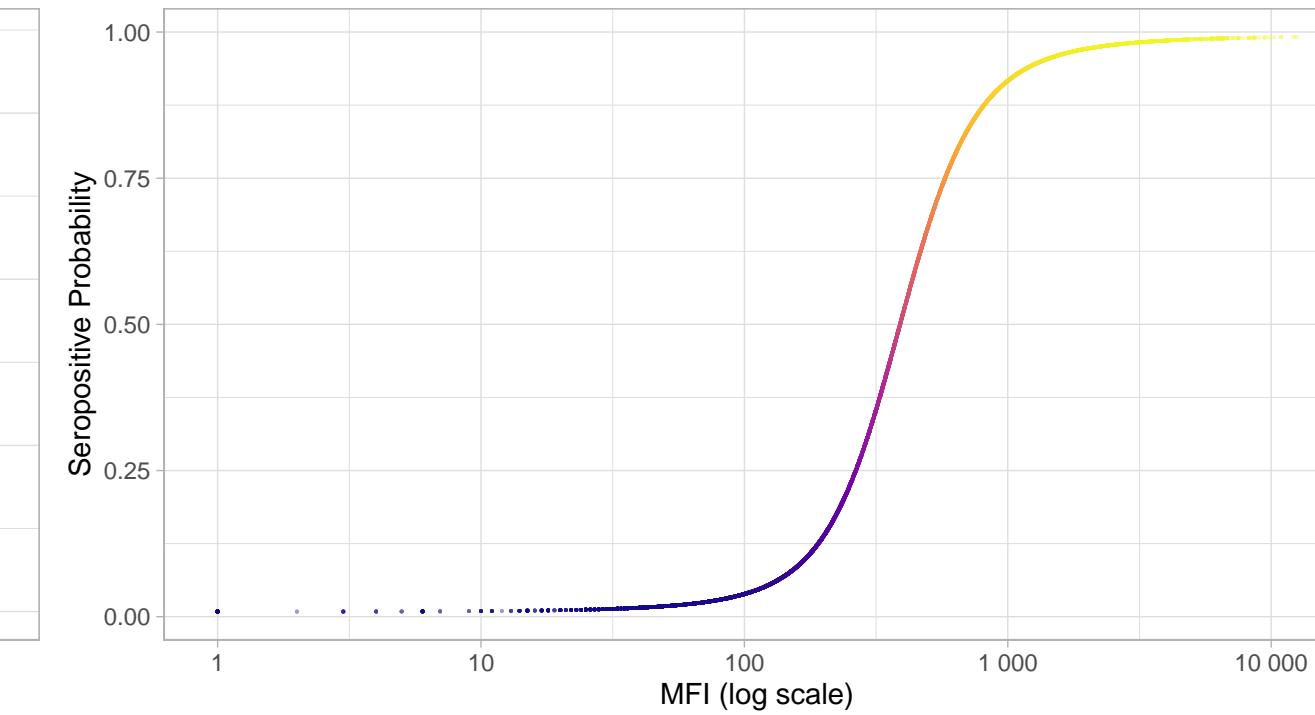
N=9424 | >0.95=833 | <0.05=2415 | Ambig=6176

Original MFI Distribution: hhv6\_ie1b

Hard cutoff threshold = 100

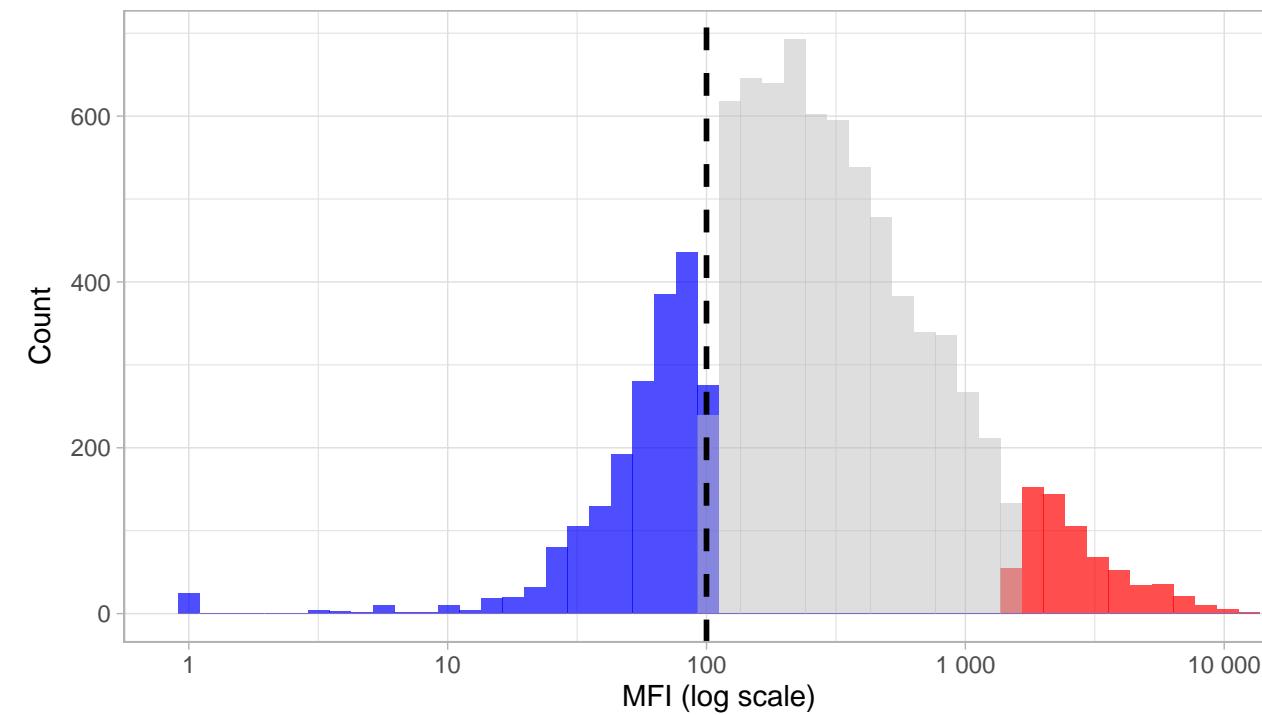


IgG vs Seropositive Probability: hhv6\_ie1b



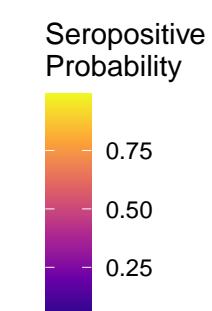
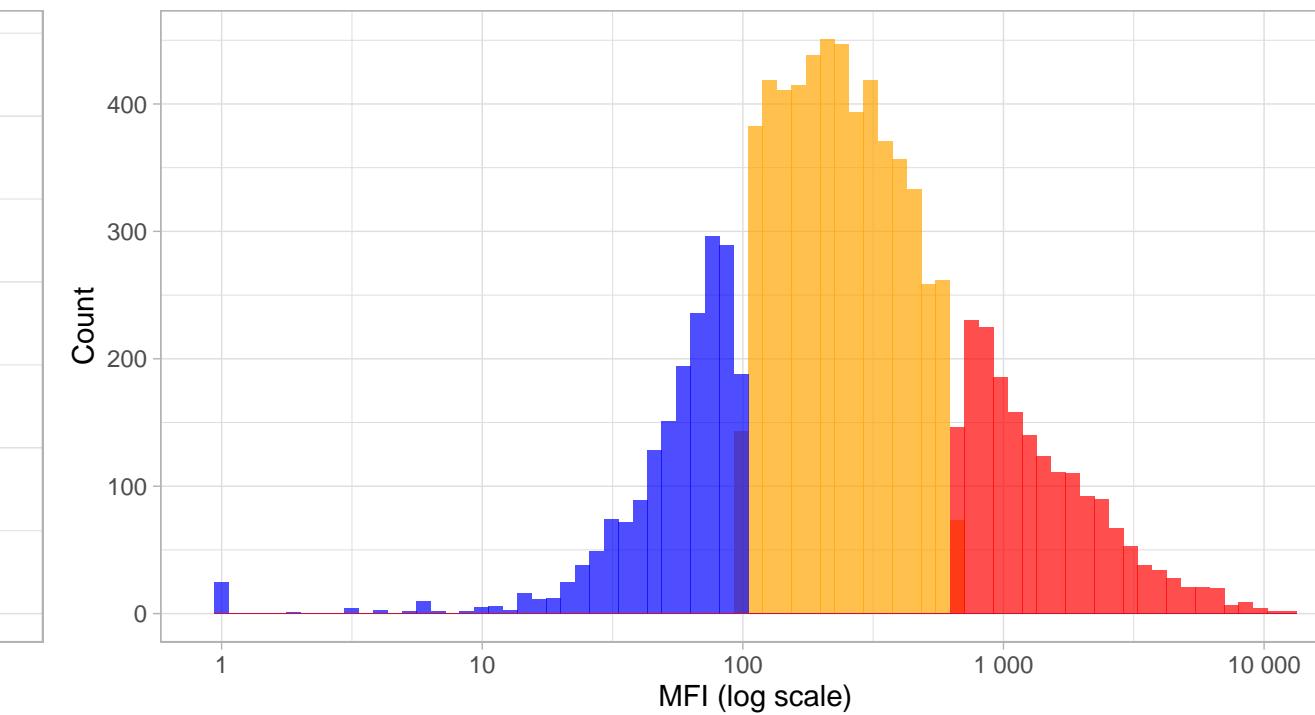
High-Confidence Seropositive Distribution: hhv6\_ie1b

Prob threshold = 0.96



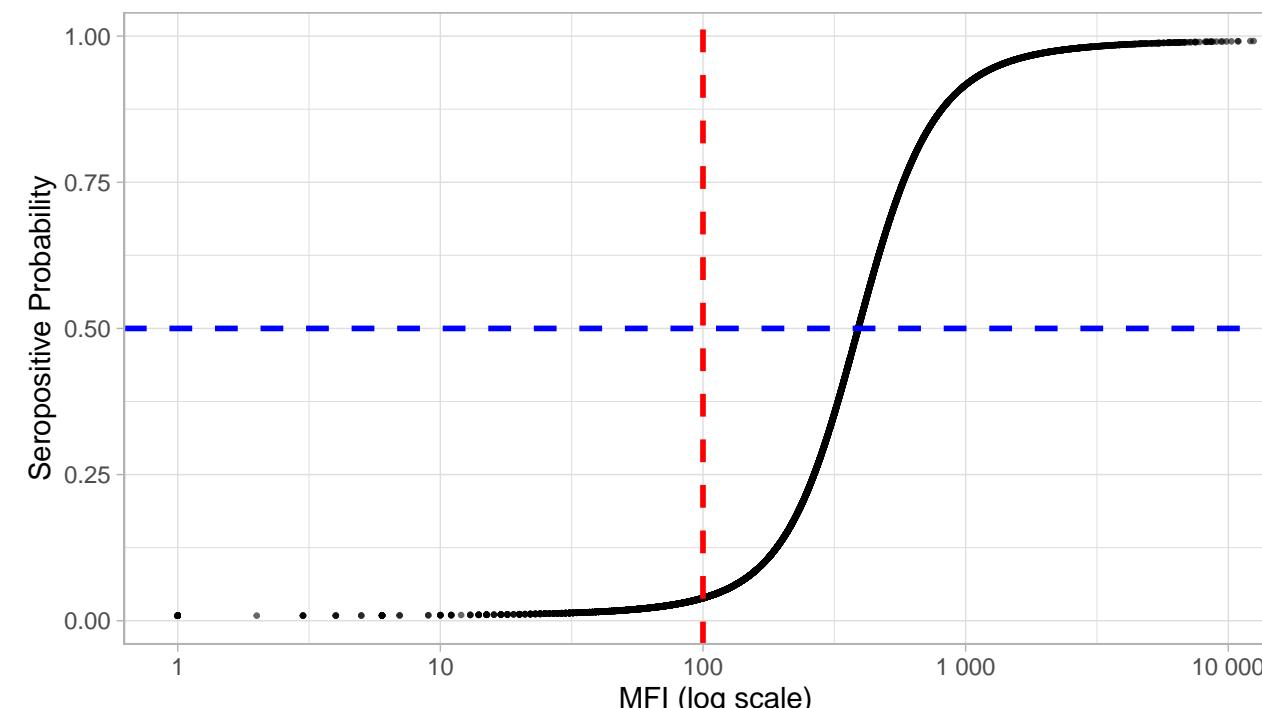
Phenotype Distribution by Classification: hhv6\_ie1b

Comparing hard vs soft classifications



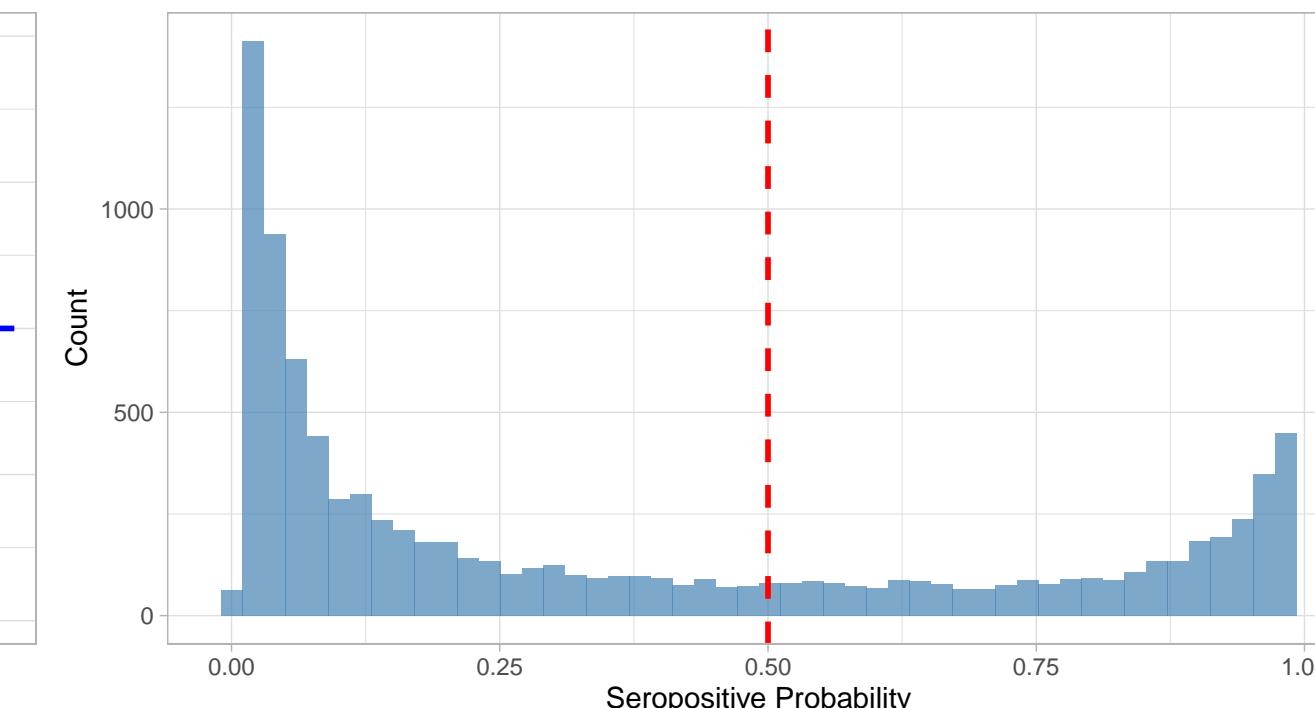
IgG Level vs Seropositive Probability: hhv6\_ie1b

Red line = hard threshold, Blue line = 50% probability



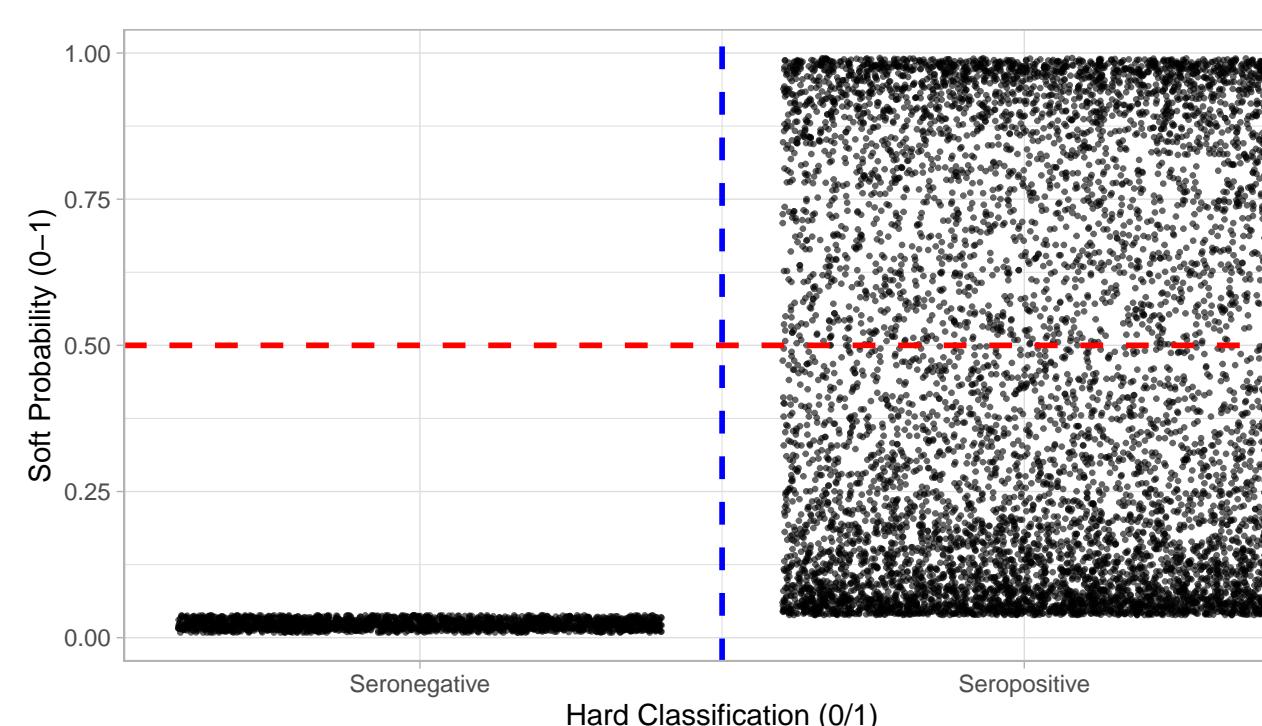
Distribution of Seropositive Probabilities: hhv6\_ie1b

Red line = 50% threshold



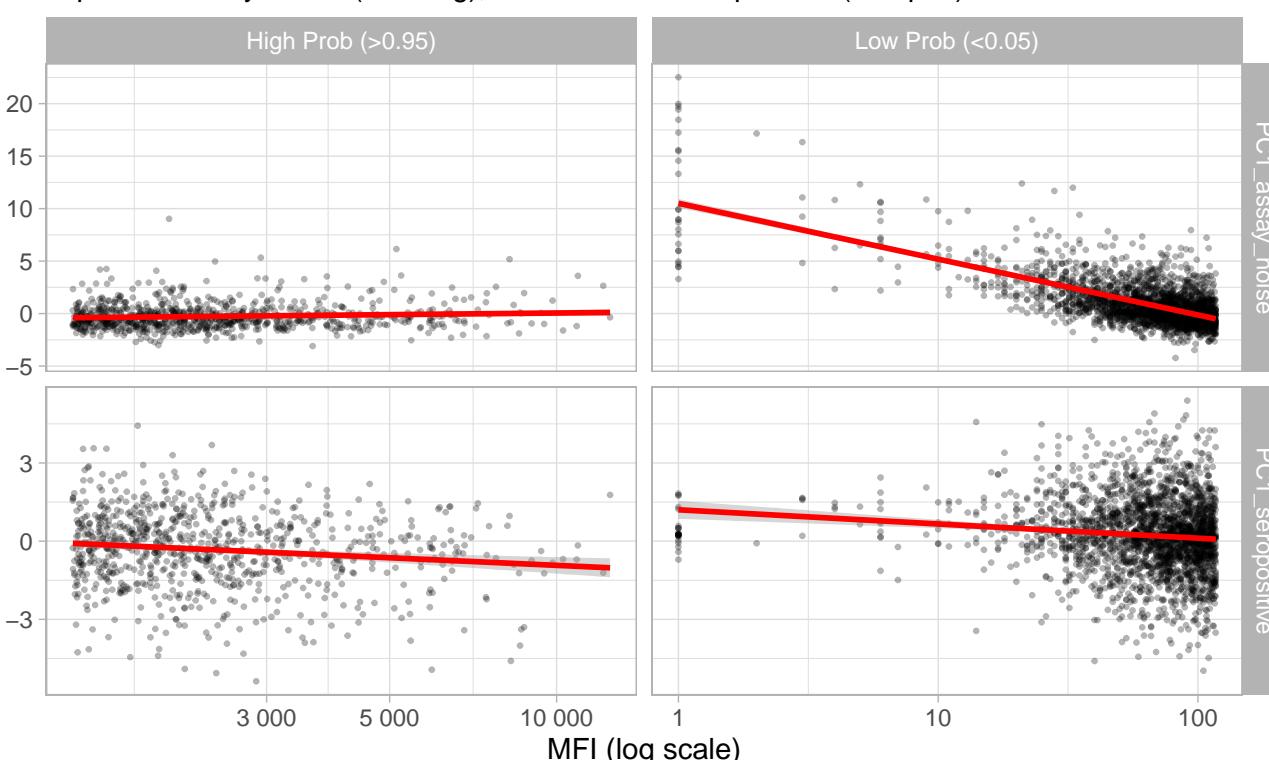
Hard vs Soft Classification: hhv6\_ie1b

Red line = 50% soft threshold, Blue line = hard threshold



PC1 Components vs IgG Level: hhv6\_ie1b

Top: PC1\_assay\_noise (seroneg), Bottom: PC1\_seropositive (seropos)

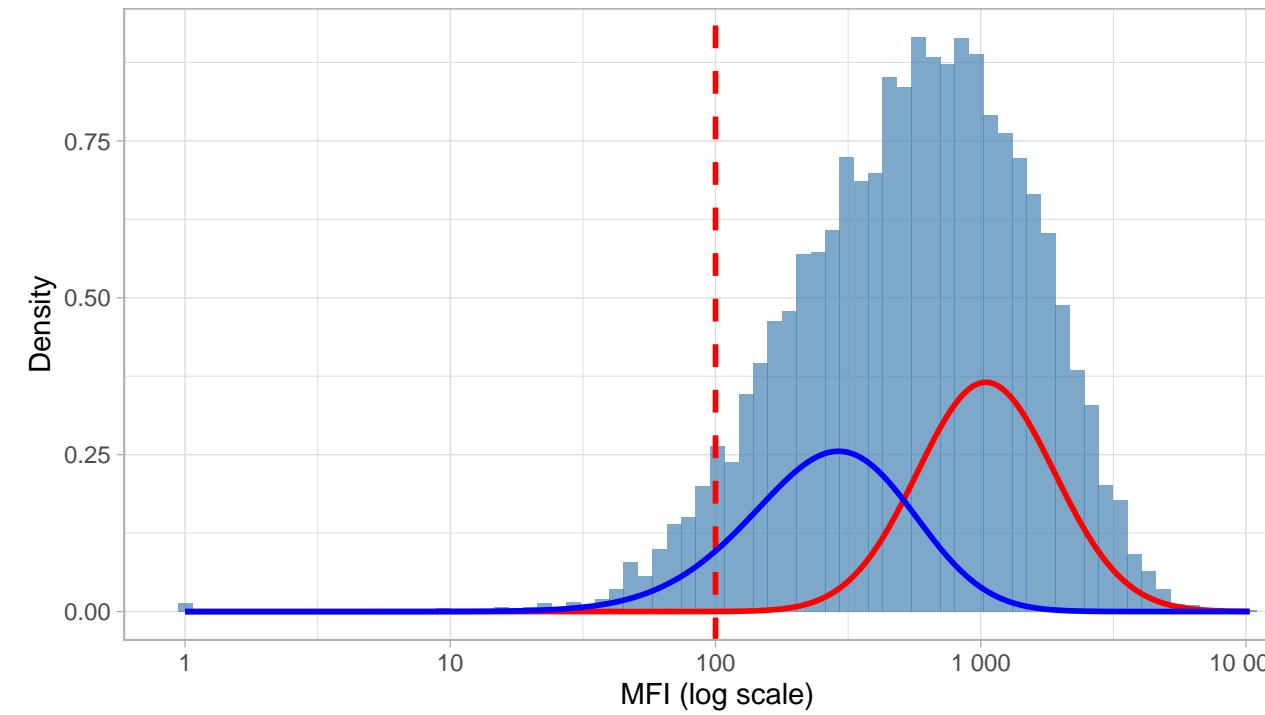


# Diagnostics: hhv7\_u14

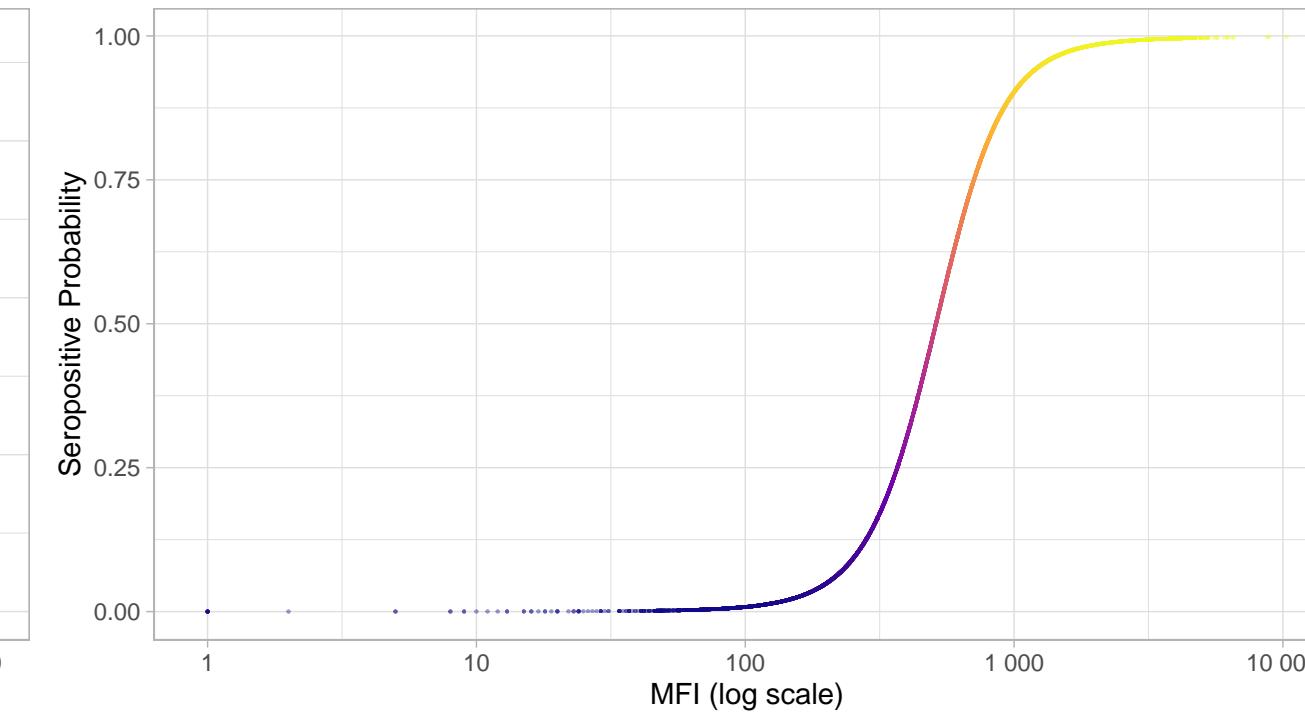
N=9424 | >0.95=2044 | <0.05=1570 | Ambig=5810

Original MFI Distribution: hhv7\_u14

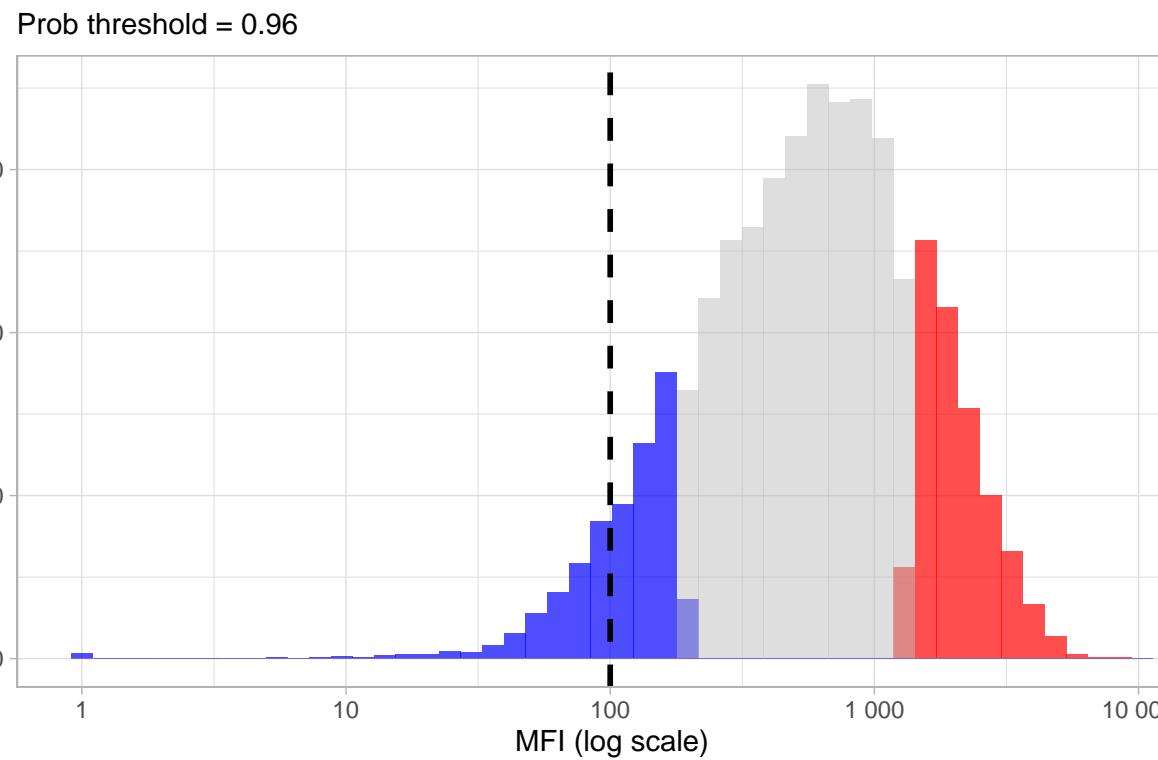
Hard cutoff threshold = 100



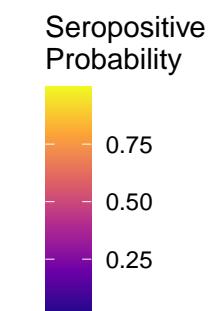
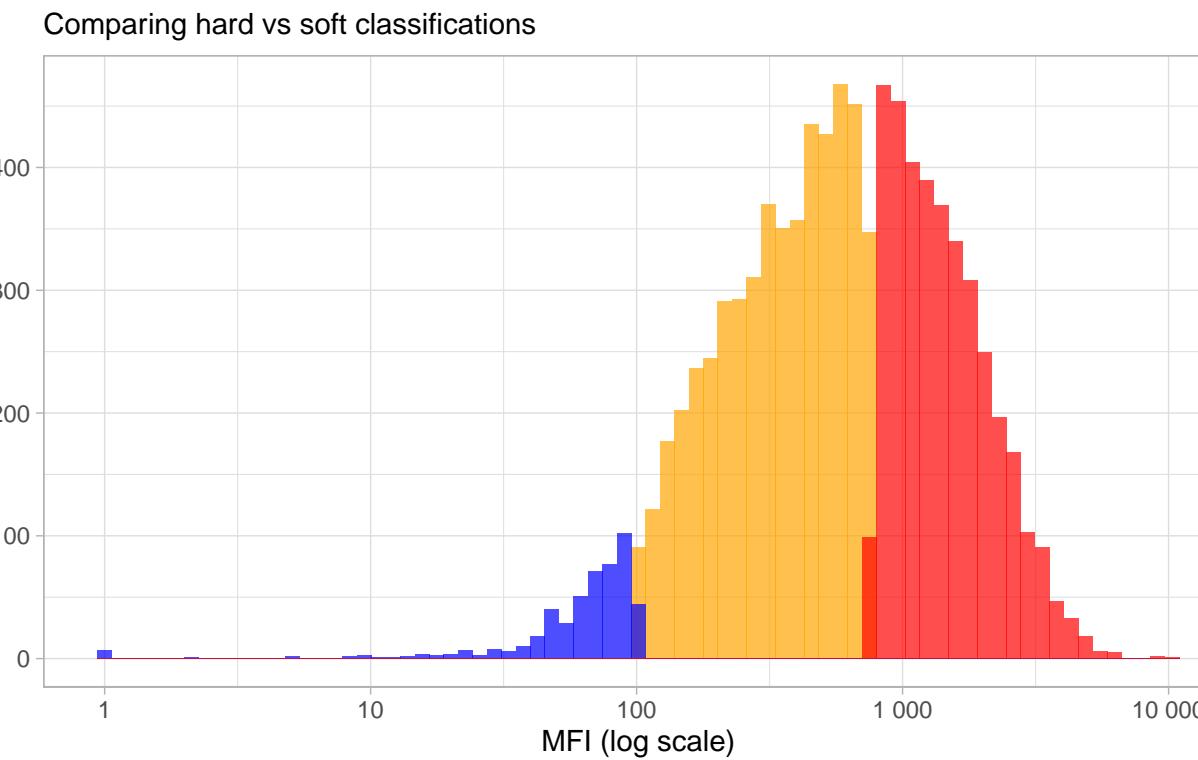
IgG vs Seropositive Probability: hhv7\_u14



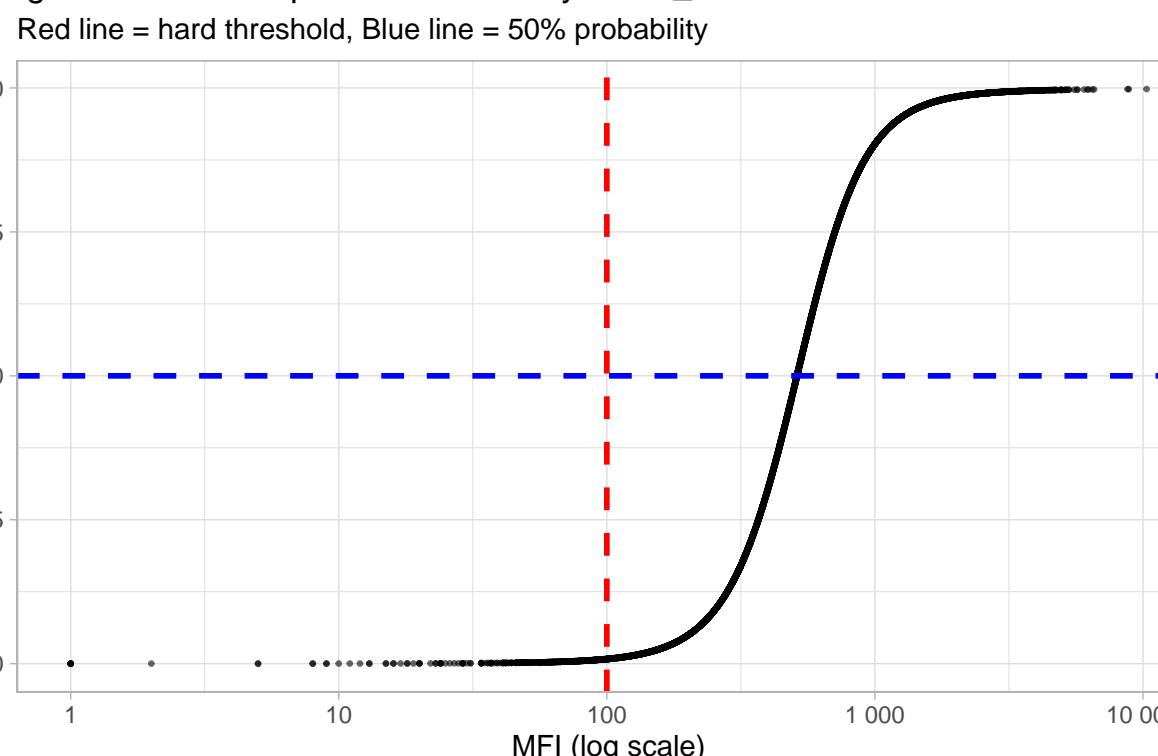
High-Confidence Seropositive Distribution: hhv7\_u14



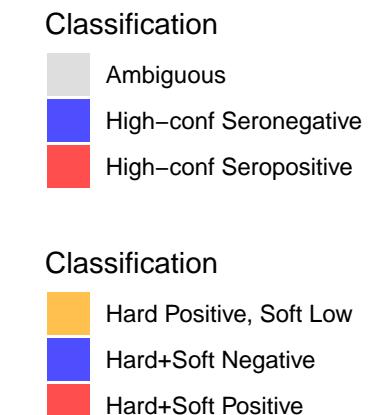
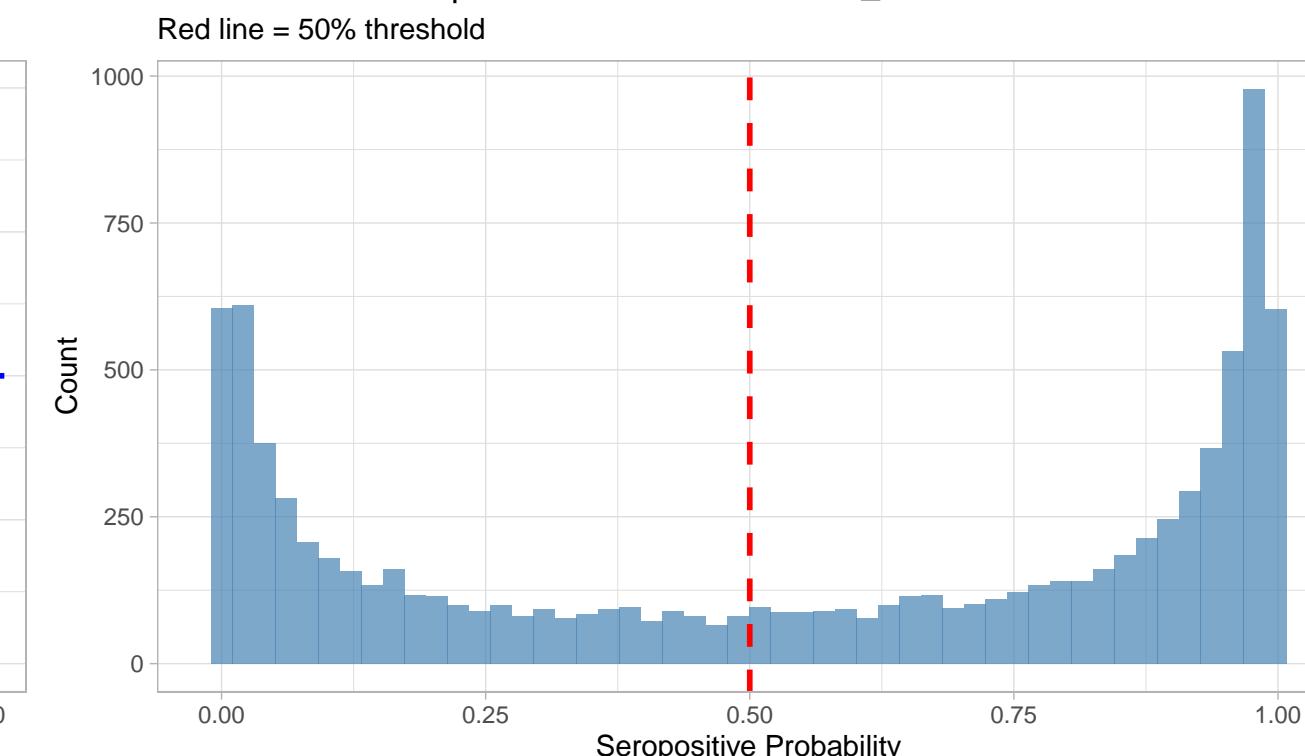
Phenotype Distribution by Classification: hhv7\_u14



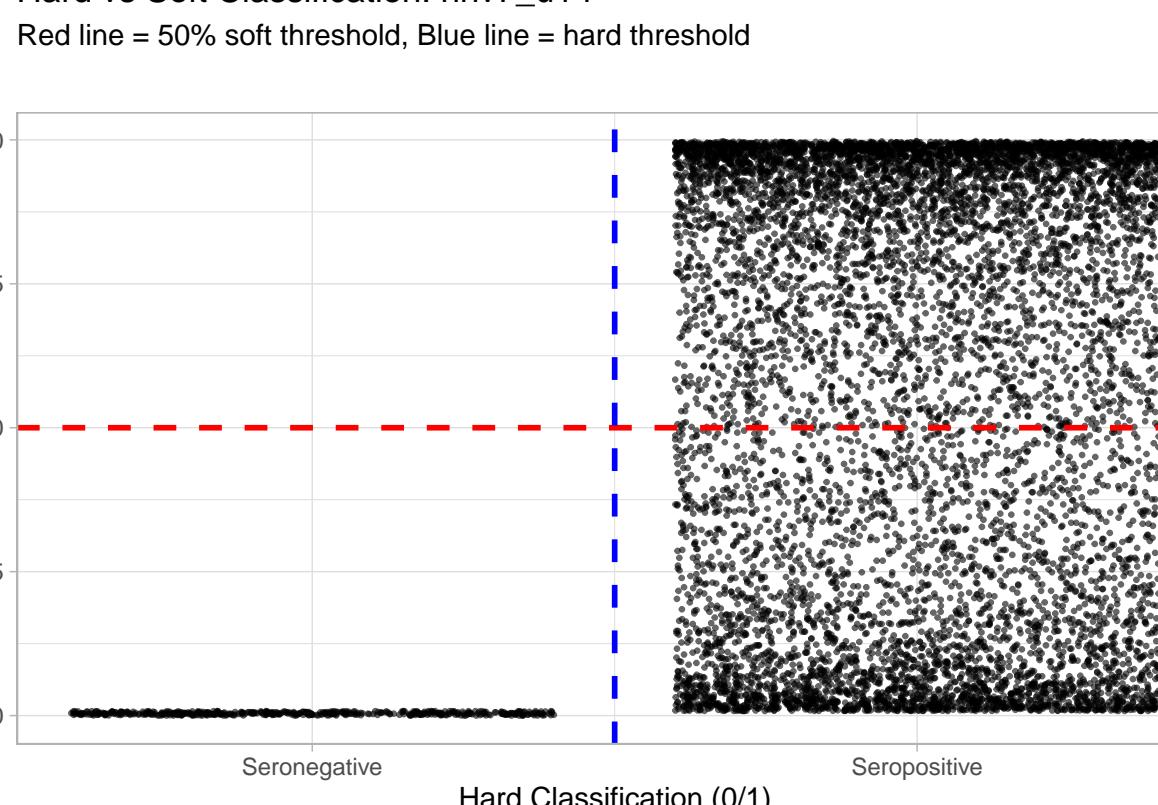
IgG Level vs Seropositive Probability: hhv7\_u14



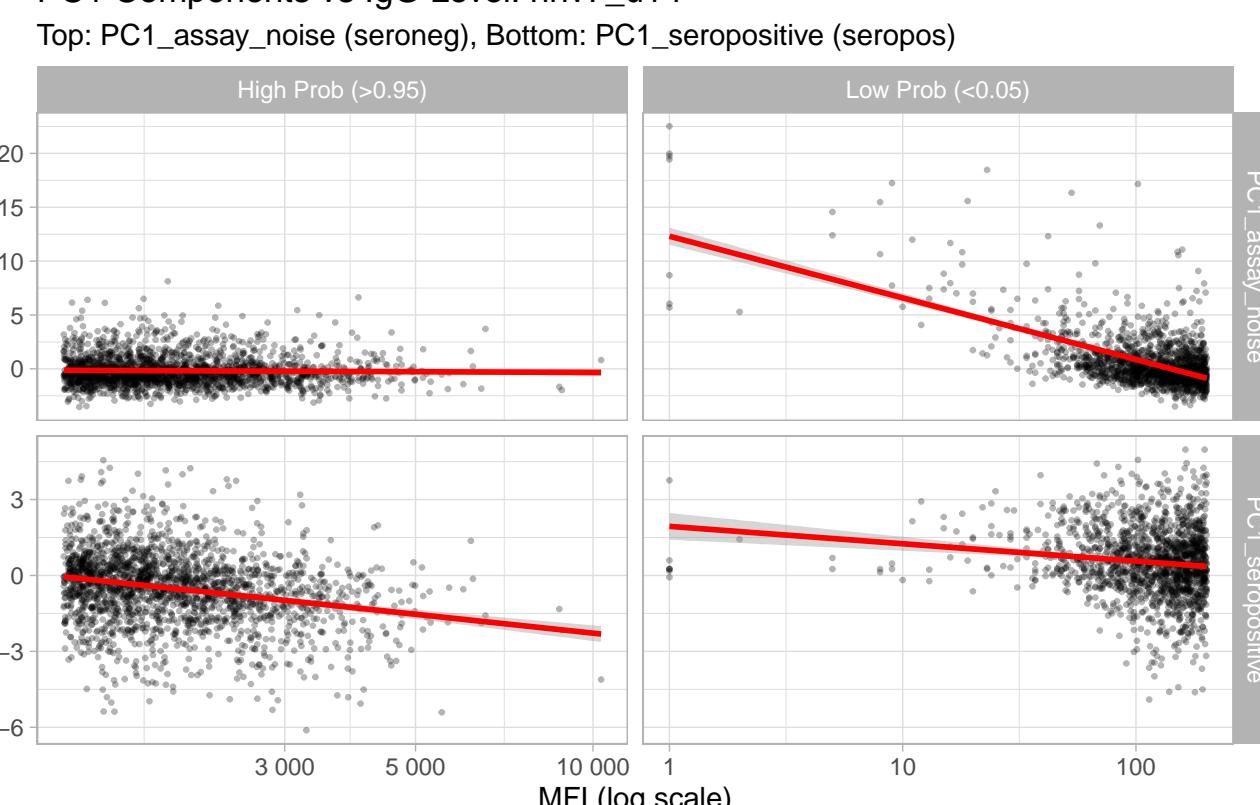
Distribution of Seropositive Probabilities: hhv7\_u14



Hard vs Soft Classification: hhv7\_u14



PC1 Components vs IgG Level: hhv7\_u14

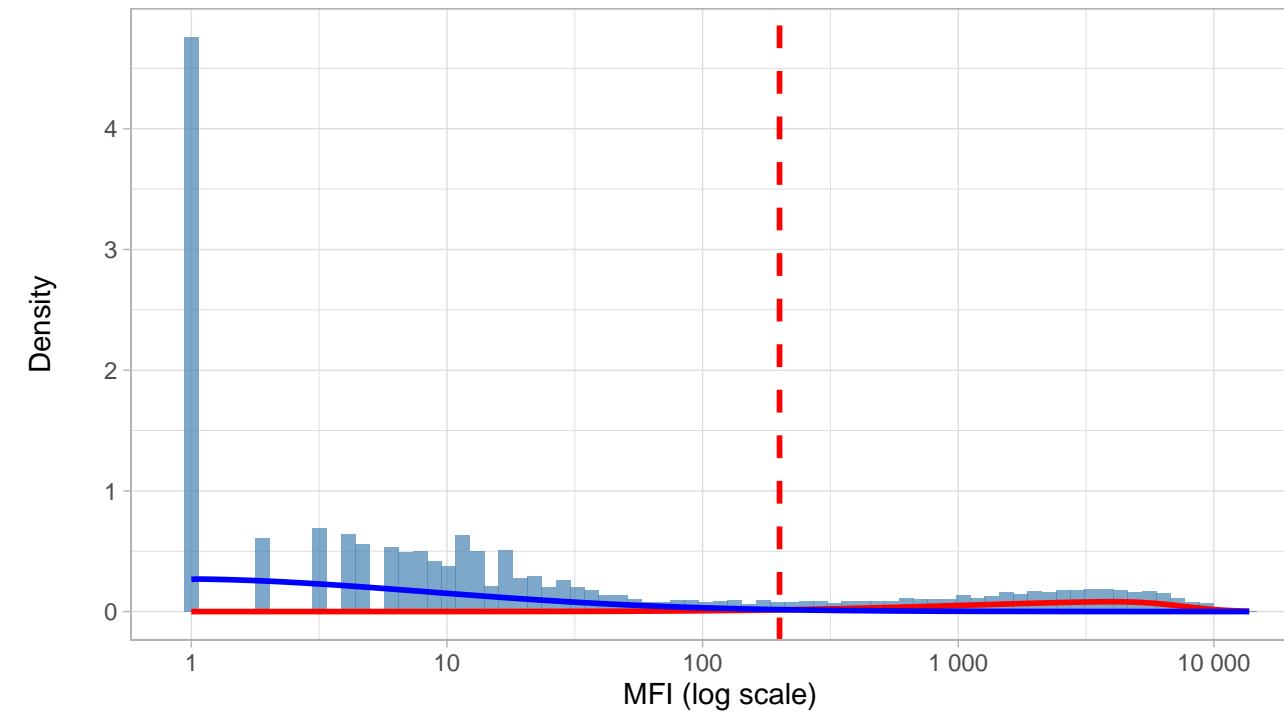


# Diagnostics: ct\_pgp3

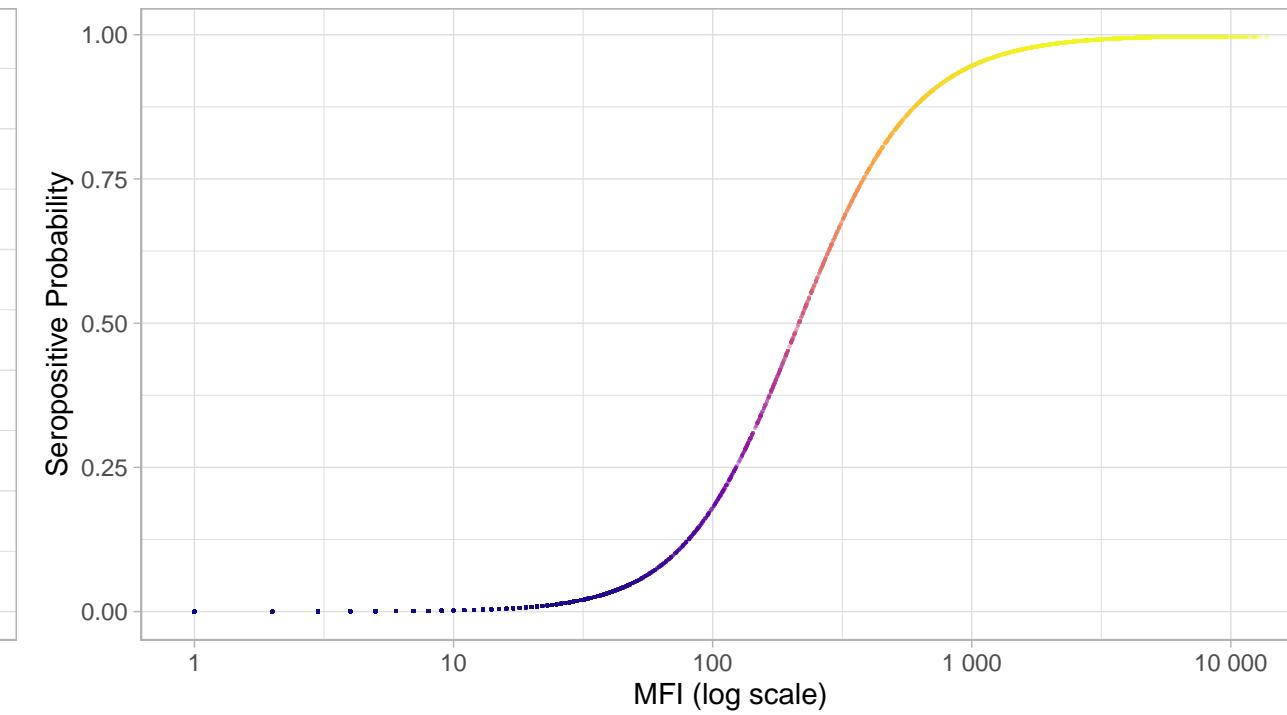
N=9424 | >0.95=1392 | <0.05=6906 | Ambig=1126

Original MFI Distribution: ct\_pgp3

Hard cutoff threshold = 200

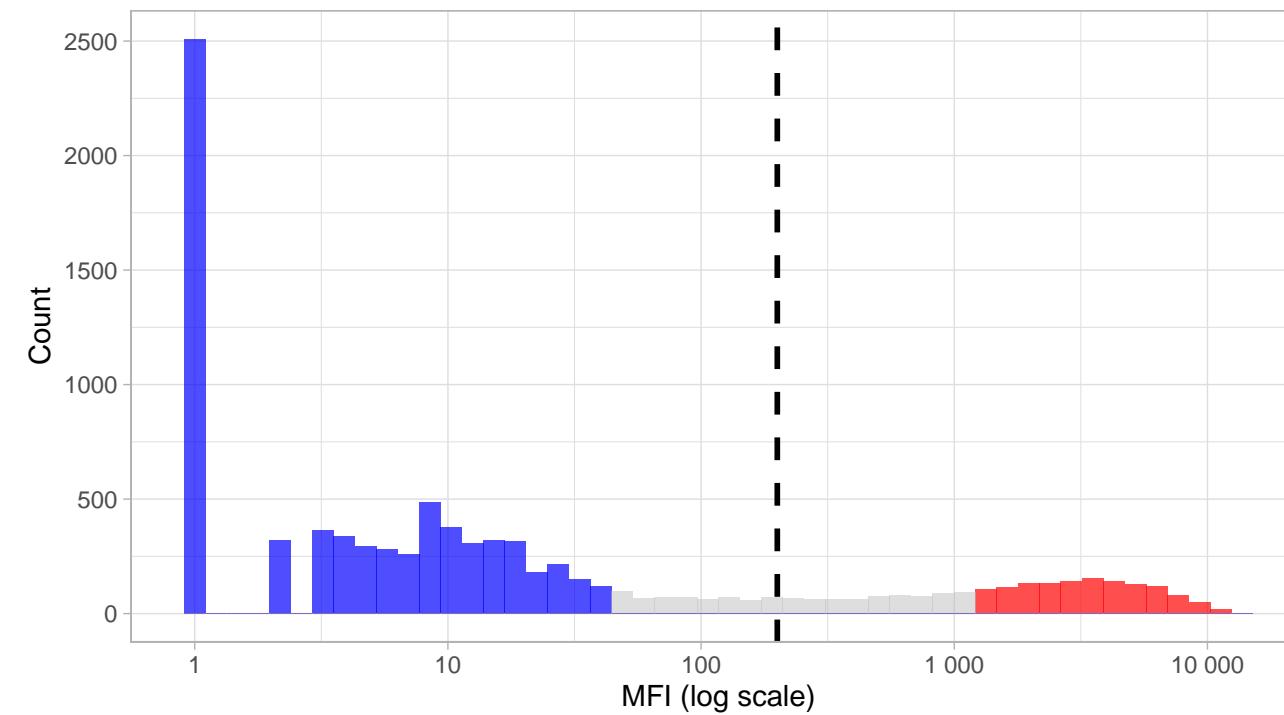


IgG vs Seropositive Probability: ct\_pgp3



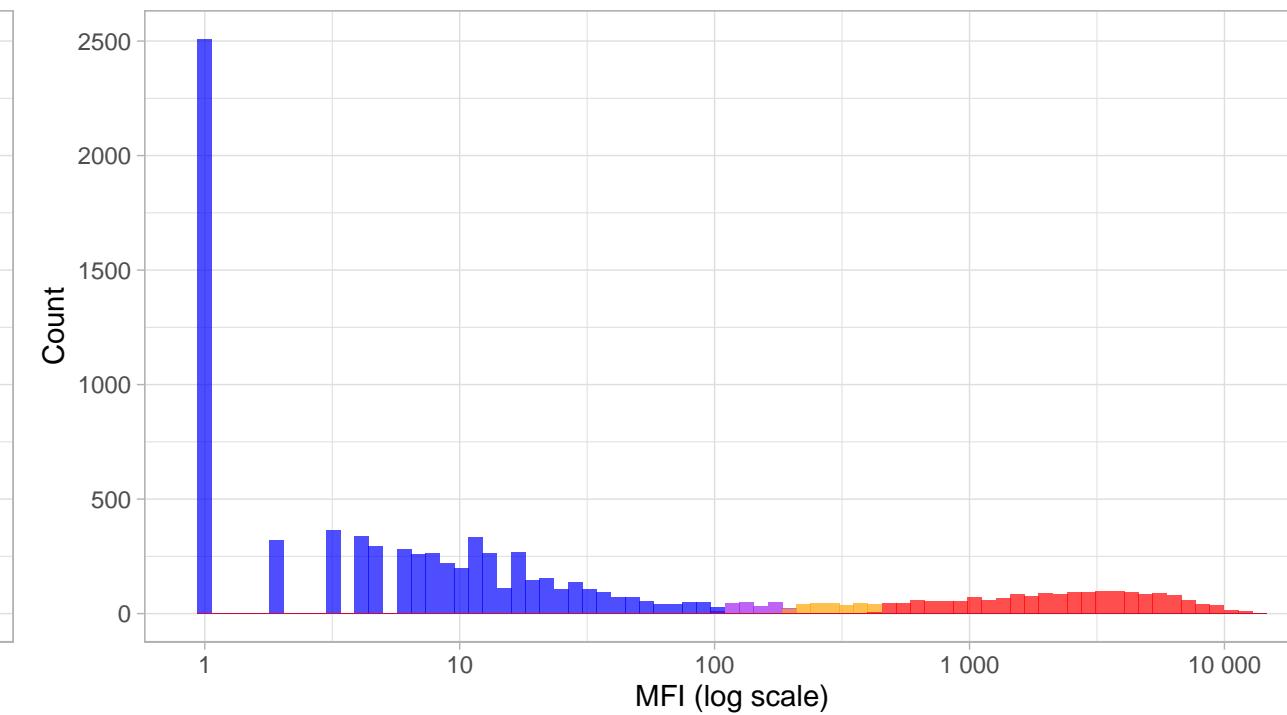
High-Confidence Seropositive Distribution: ct\_pgp3

Prob threshold = 0.96



Phenotype Distribution by Classification: ct\_pgp3

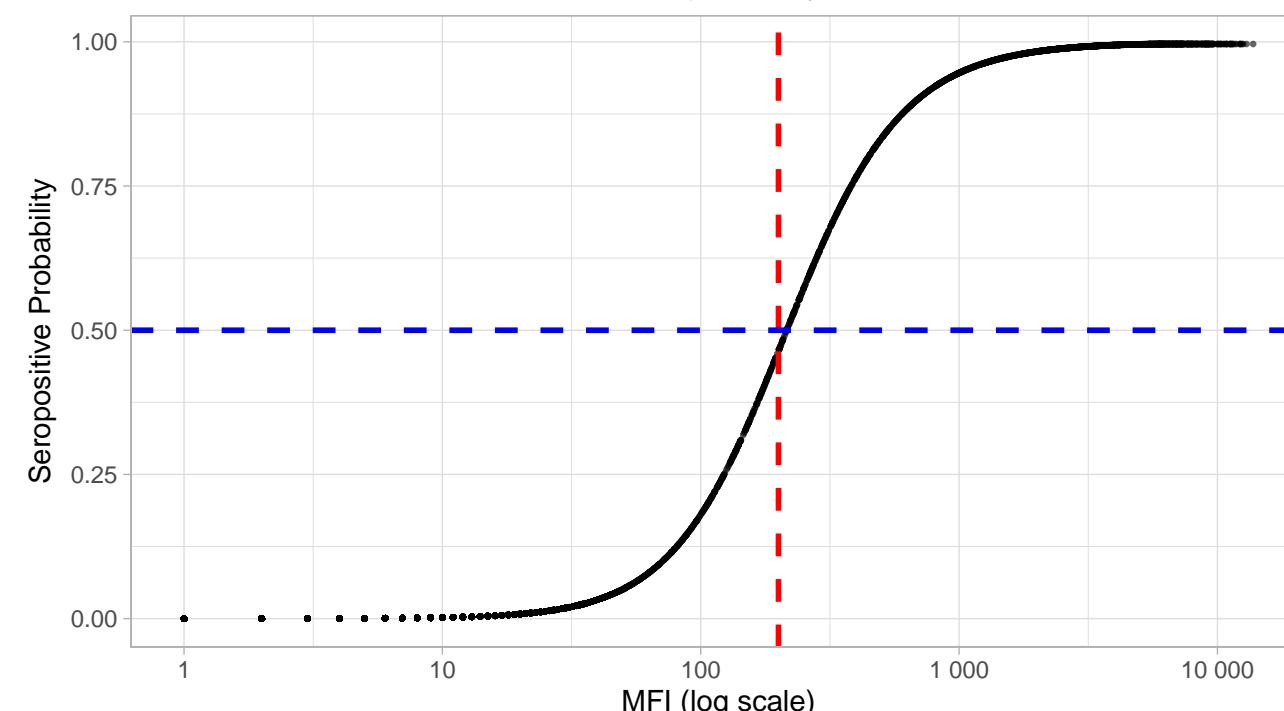
Comparing hard vs soft classifications



Seropositive Probability  
Color Scale: 0.25 (dark purple) to 0.75 (yellow)

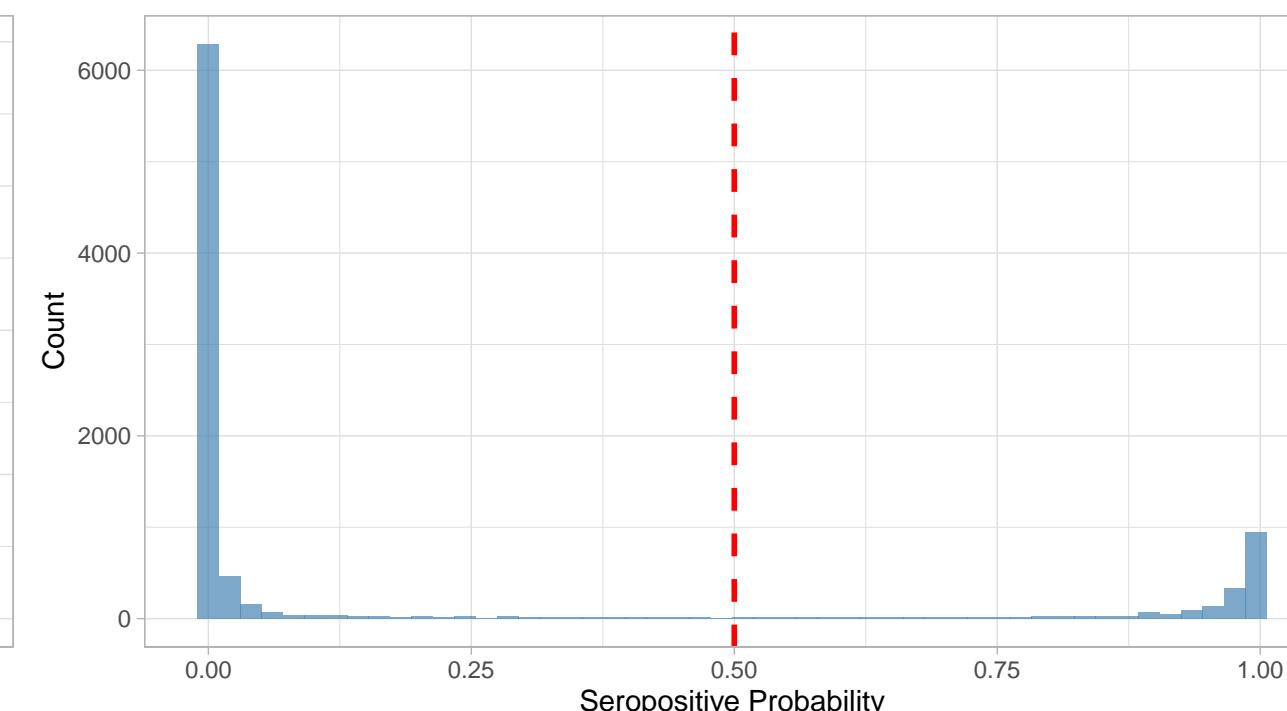
IgG Level vs Seropositive Probability: ct\_pgp3

Red line = hard threshold, Blue line = 50% probability



Distribution of Seropositive Probabilities: ct\_pgp3

Red line = 50% threshold

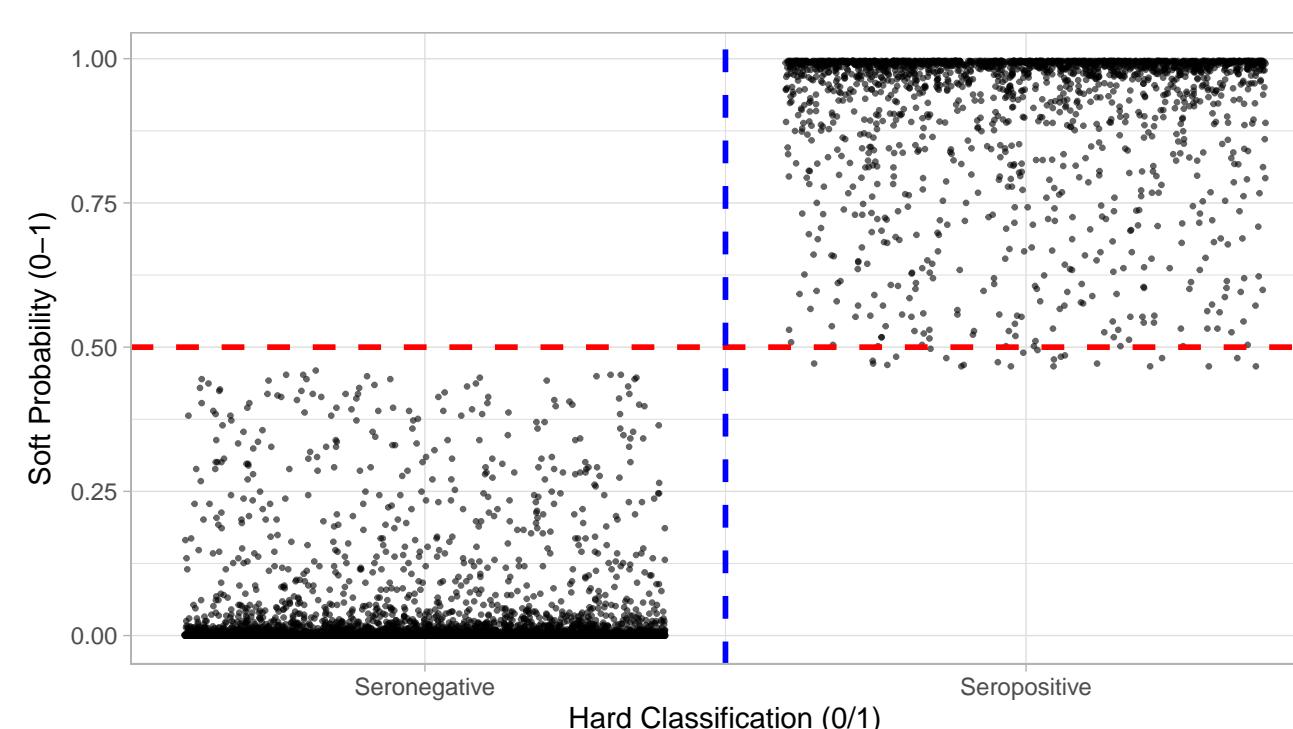


Classification  
Color Scale:  
Ambiguous (light gray)  
High-conf Seronegative (blue)  
High-conf Seropositive (red)

Classification  
Color Scale:  
Hard Negative, Soft High (purple)  
Hard Positive, Soft Low (orange)  
Hard+Soft Negative (blue)  
Hard+Soft Positive (red)

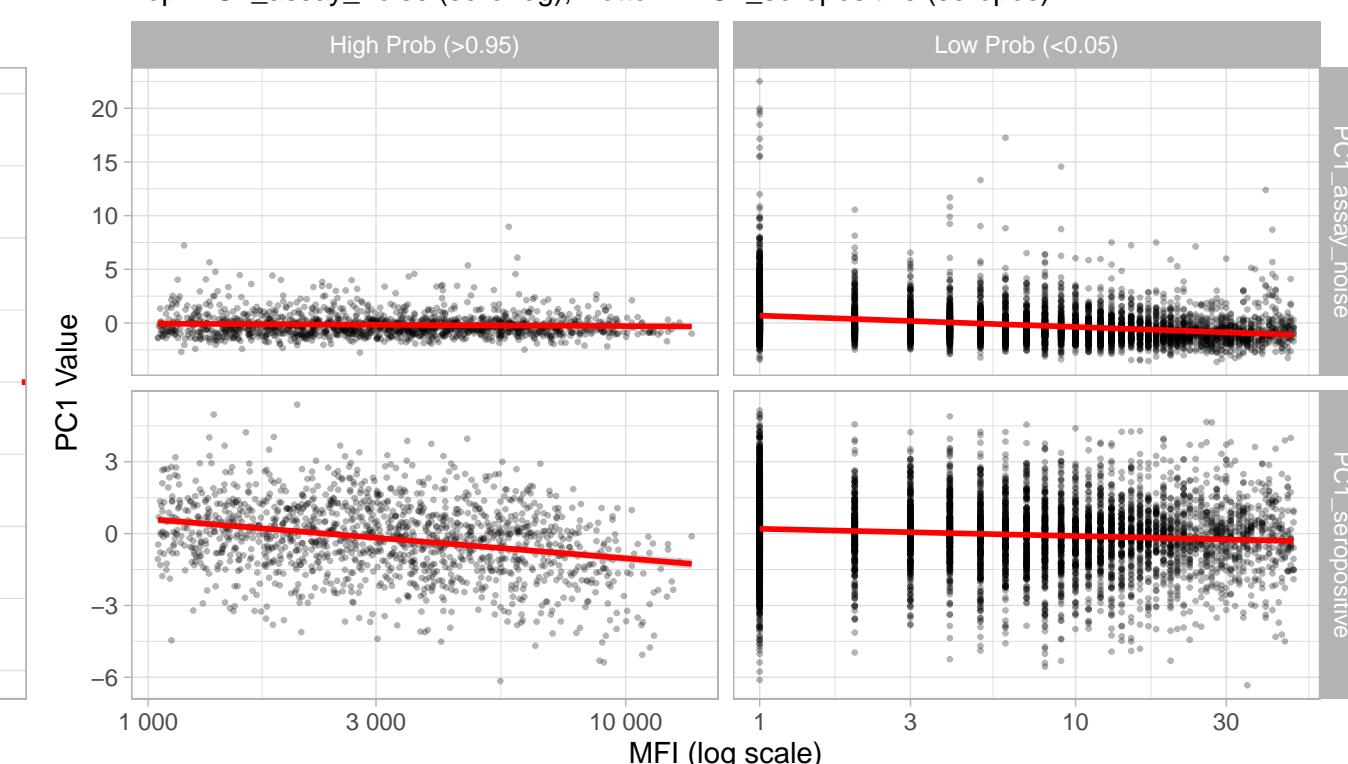
Hard vs Soft Classification: ct\_pgp3

Red line = 50% soft threshold, Blue line = hard threshold



PC1 Components vs IgG Level: ct\_pgp3

Top: PC1\_assay\_noise (seroneg), Bottom: PC1\_seropositive (seropos)

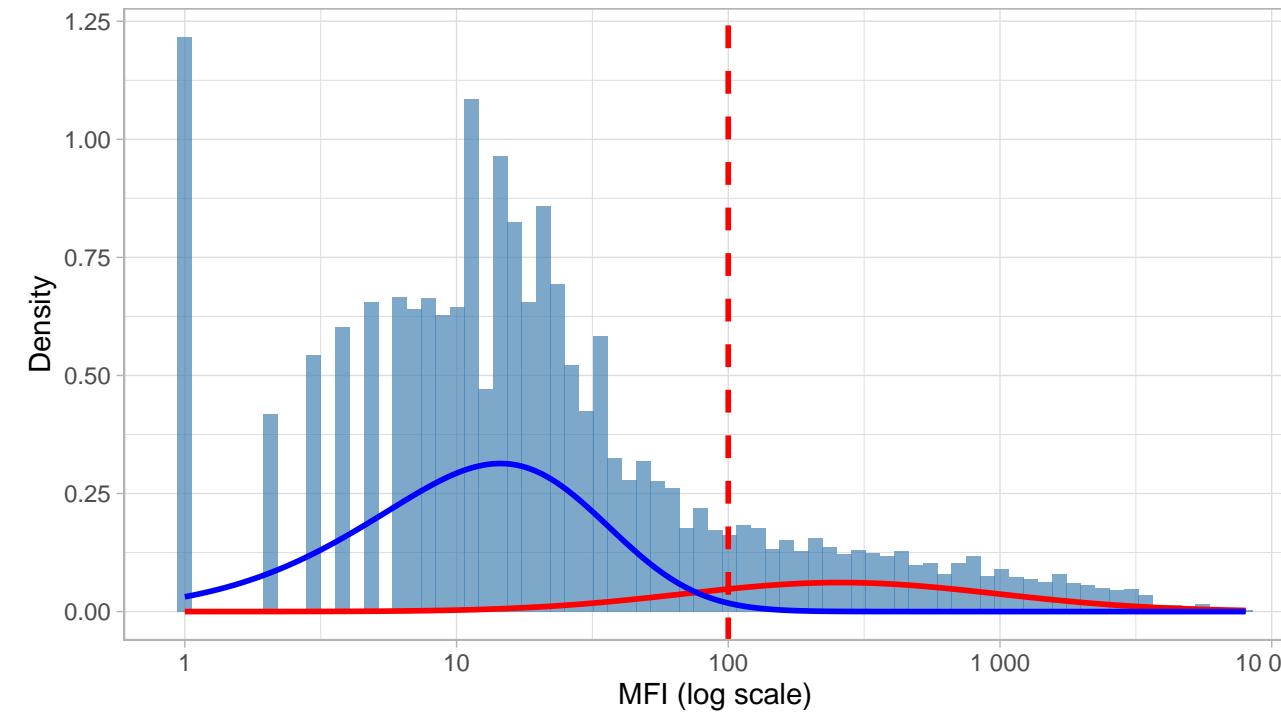


# Diagnostics: ct\_mompd

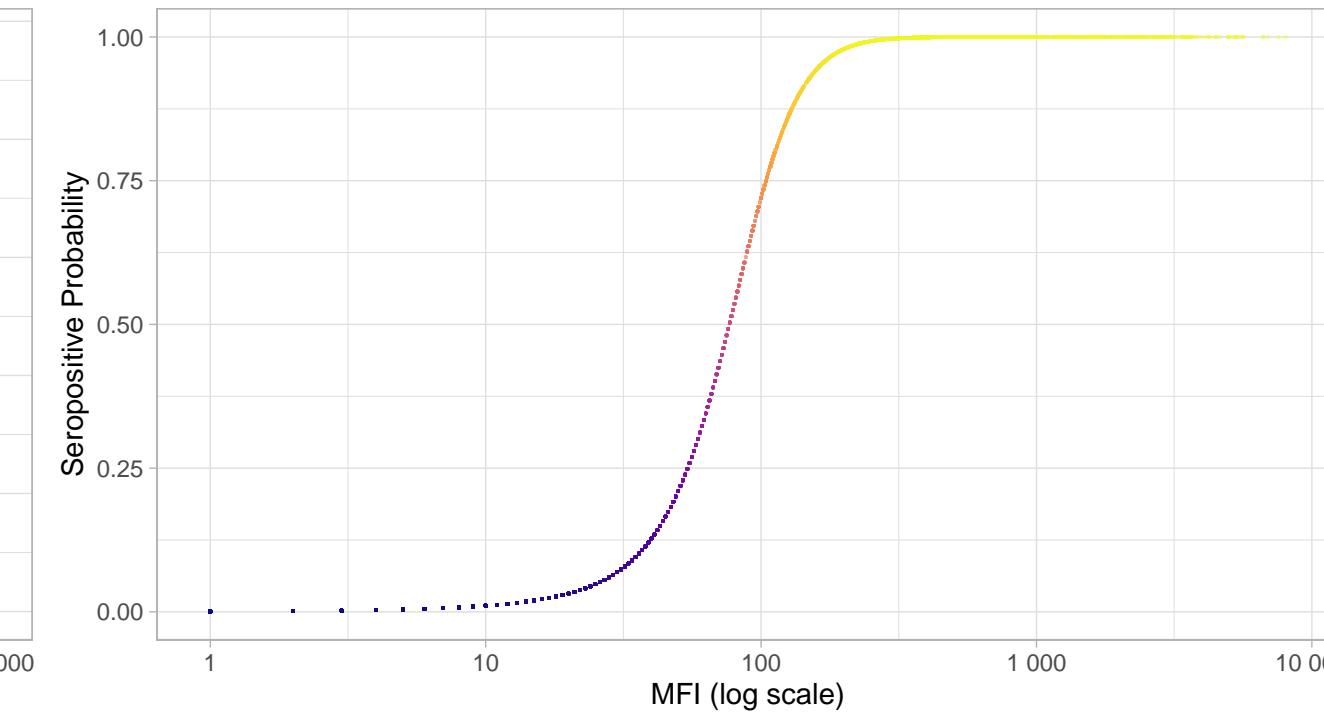
N=9424 | >0.95=1209 | <0.05=6083 | Ambig=2132

Original MFI Distribution: ct\_mompd

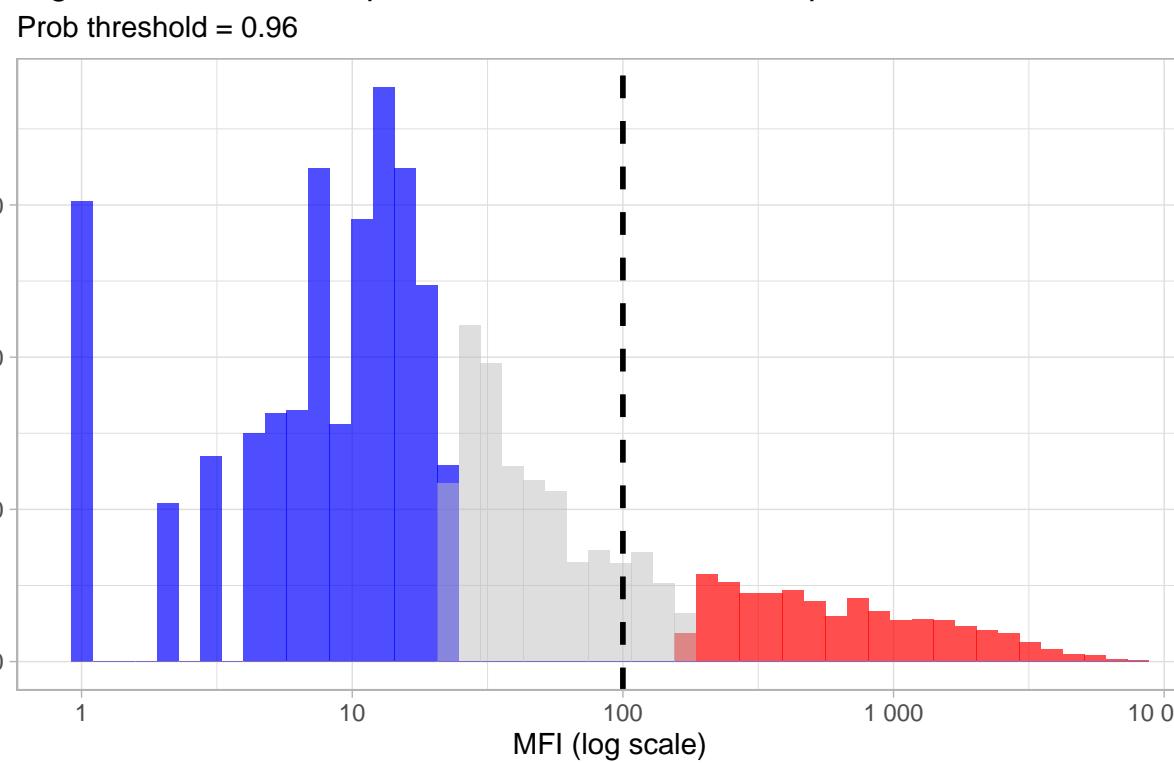
Hard cutoff threshold = 100



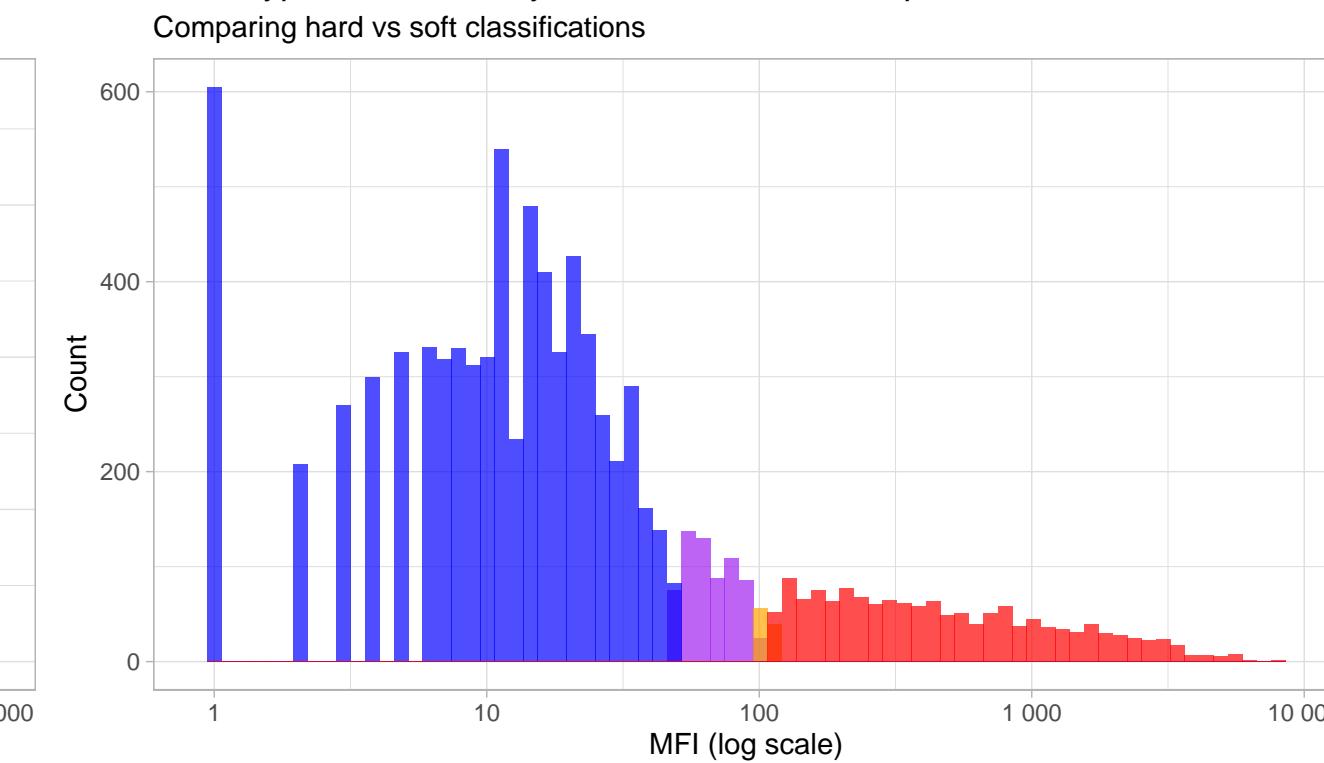
IgG vs Seropositive Probability: ct\_mompd



High-Confidence Seropositive Distribution: ct\_mompd



Phenotype Distribution by Classification: ct\_mompd



Seropositive Probability  
1.00  
0.75  
0.50  
0.25

Classification

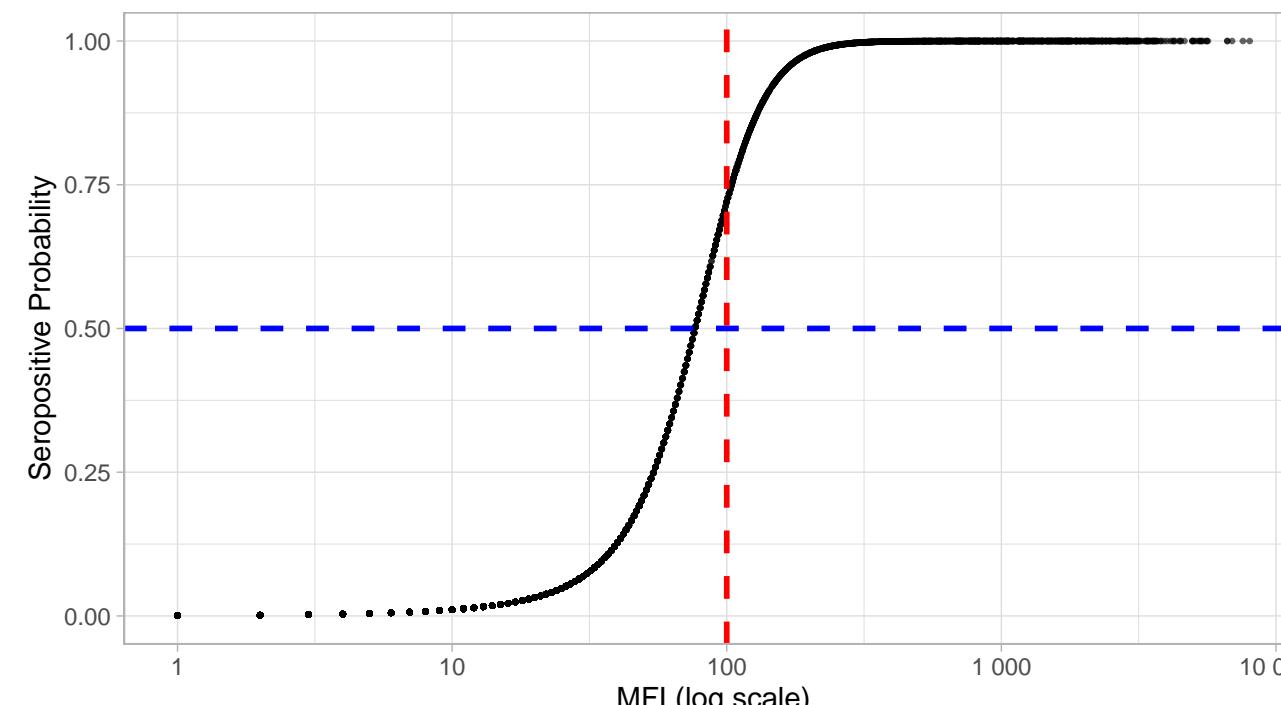
Ambiguous  
High-conf Seronegative  
High-conf Seropositive

Classification

Hard Negative, Soft High  
Hard Positive, Soft Low  
Hard+Soft Negative  
Hard+Soft Positive

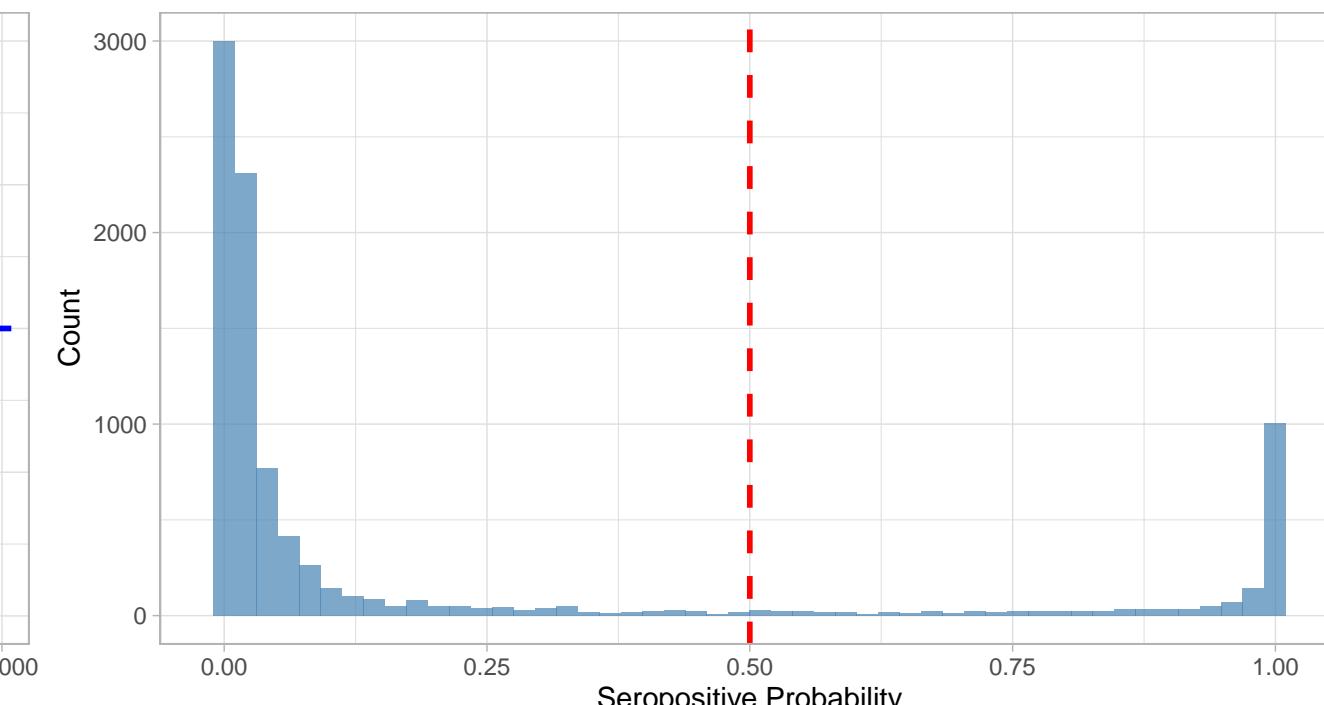
IgG Level vs Seropositive Probability: ct\_mompd

Red line = hard threshold, Blue line = 50% probability



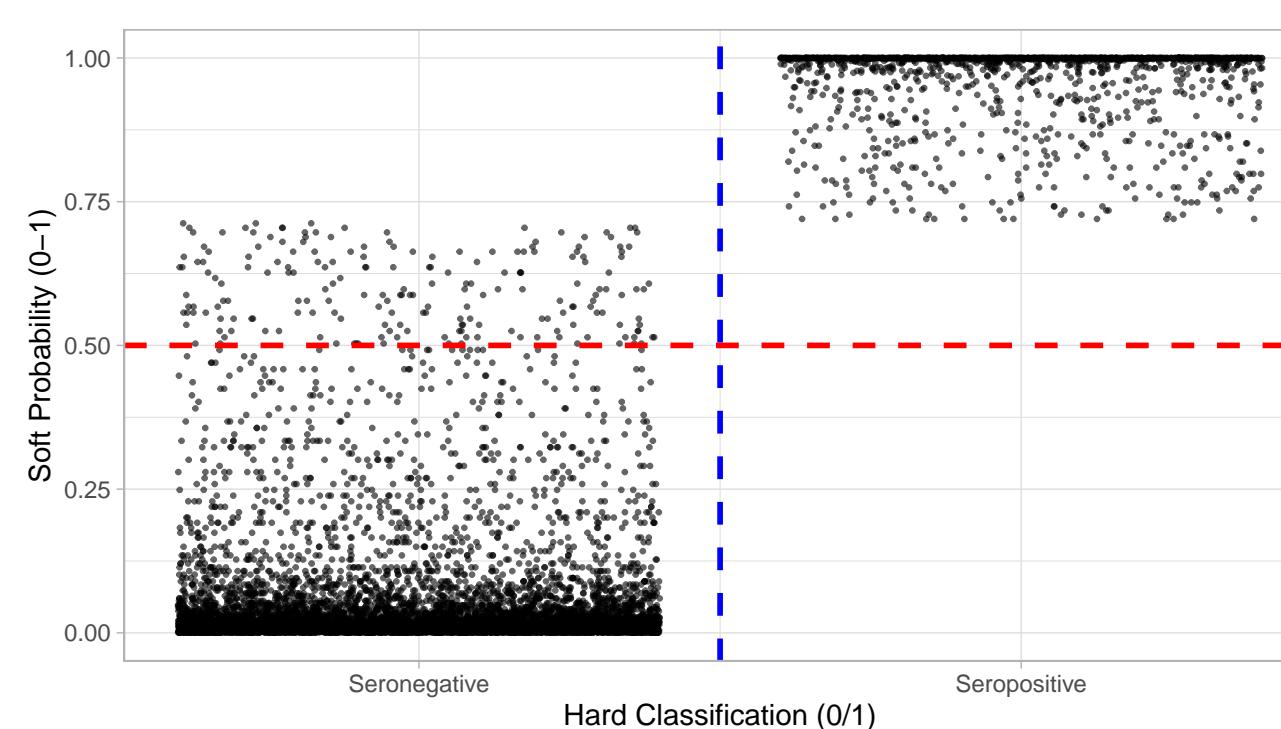
Distribution of Seropositive Probabilities: ct\_mompd

Red line = 50% threshold



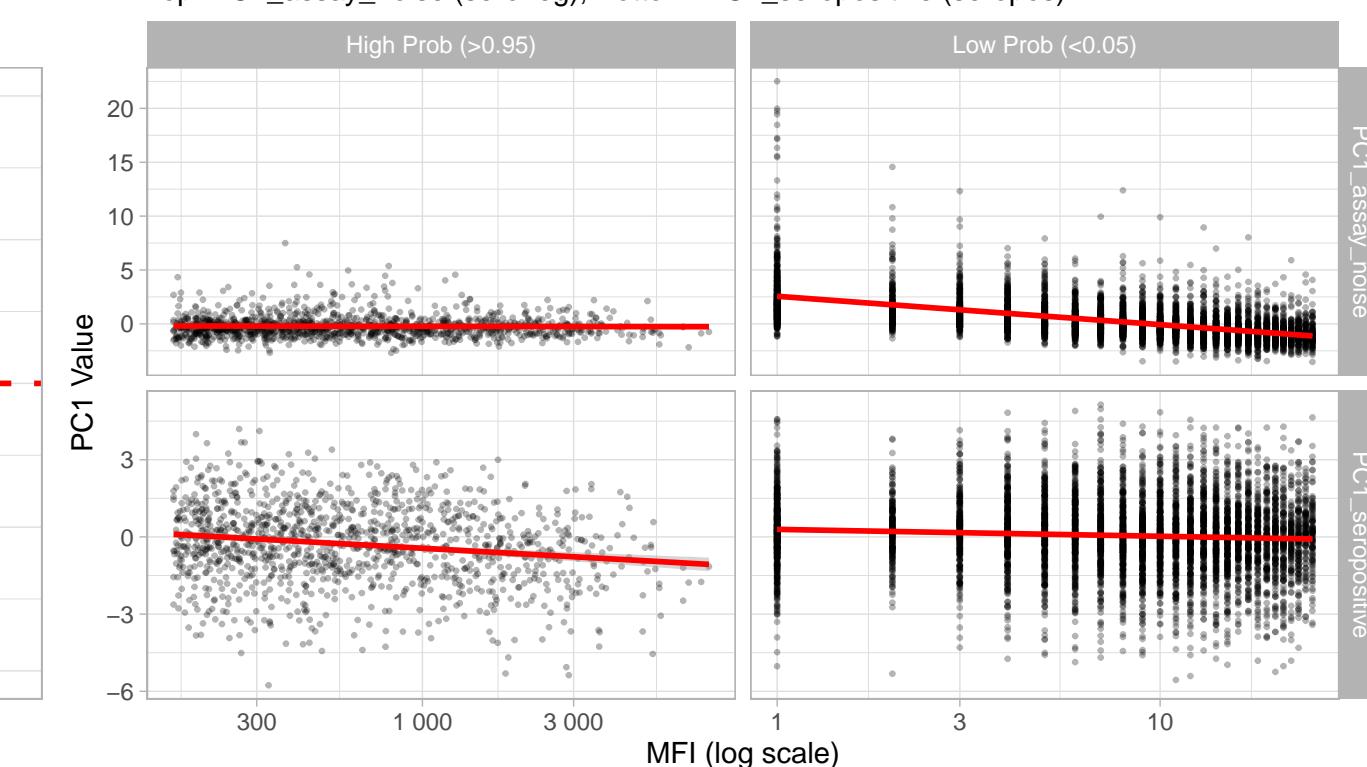
Hard vs Soft Classification: ct\_mompd

Red line = 50% soft threshold, Blue line = hard threshold



PC1 Components vs IgG Level: ct\_mompd

Top: PC1\_assay\_noise (seroneg), Bottom: PC1\_seropositive (seropos)

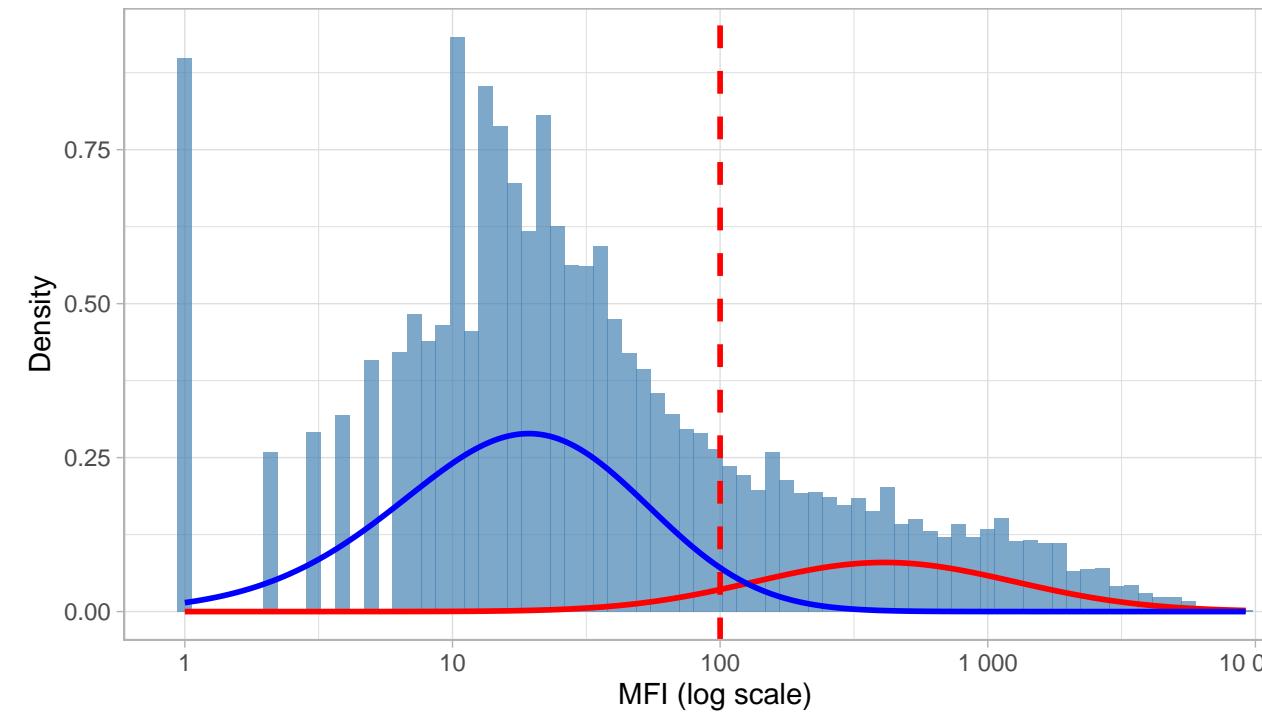


# Diagnostics: ct\_tarpf2

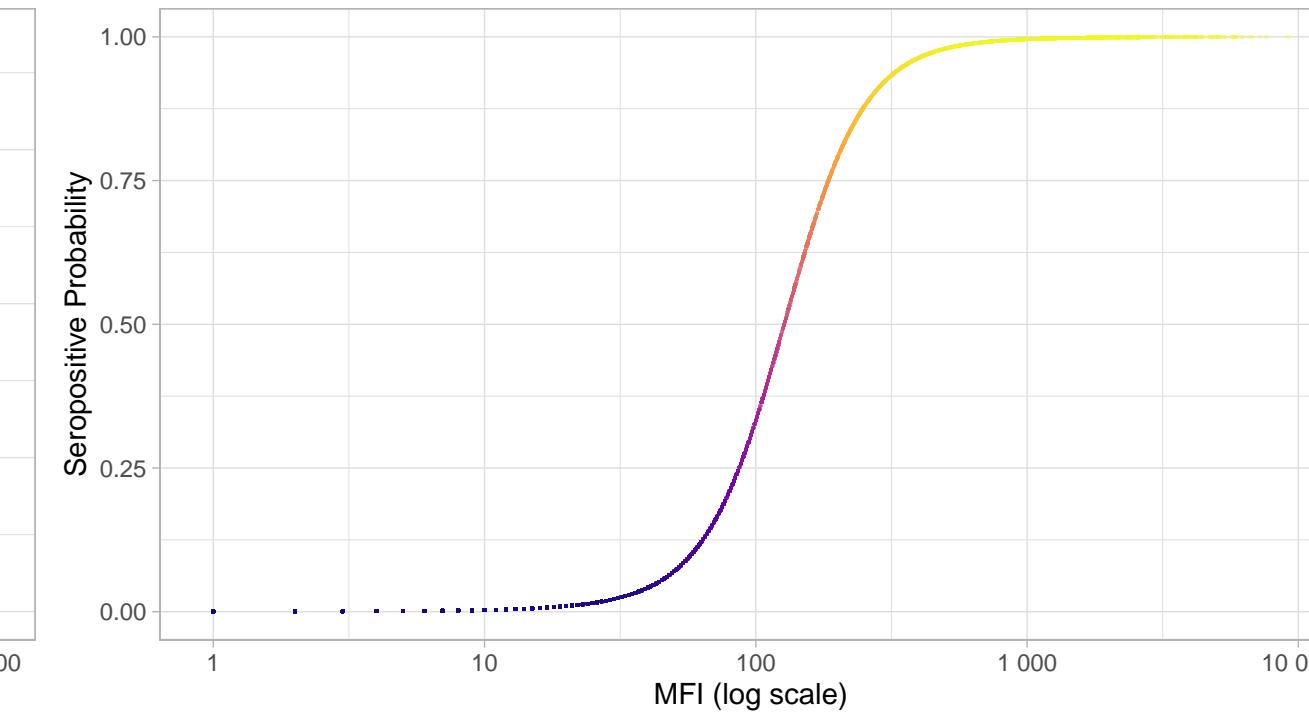
N=9424 | >0.95=1161 | <0.05=6036 | Ambig=2227

Original MFI Distribution: ct\_tarpf2

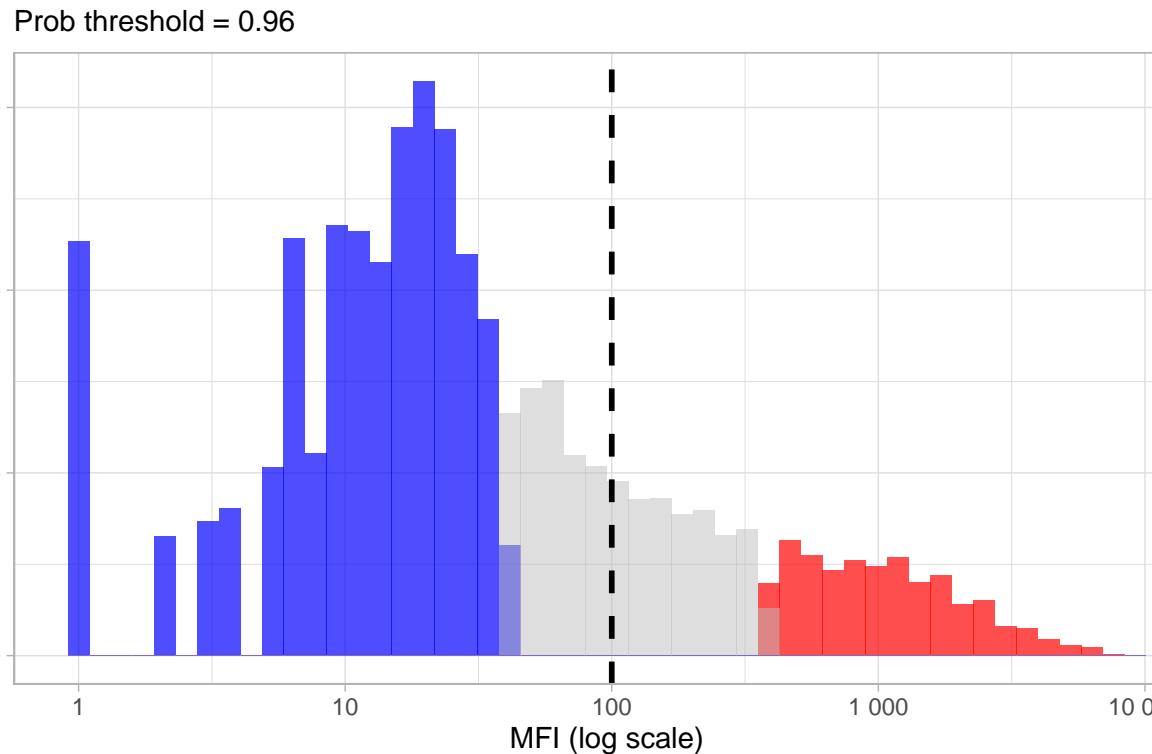
Hard cutoff threshold = 100



IgG vs Seropositive Probability: ct\_tarpf2

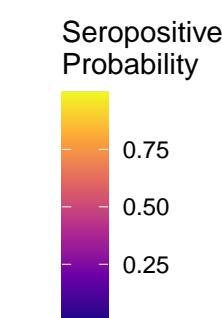
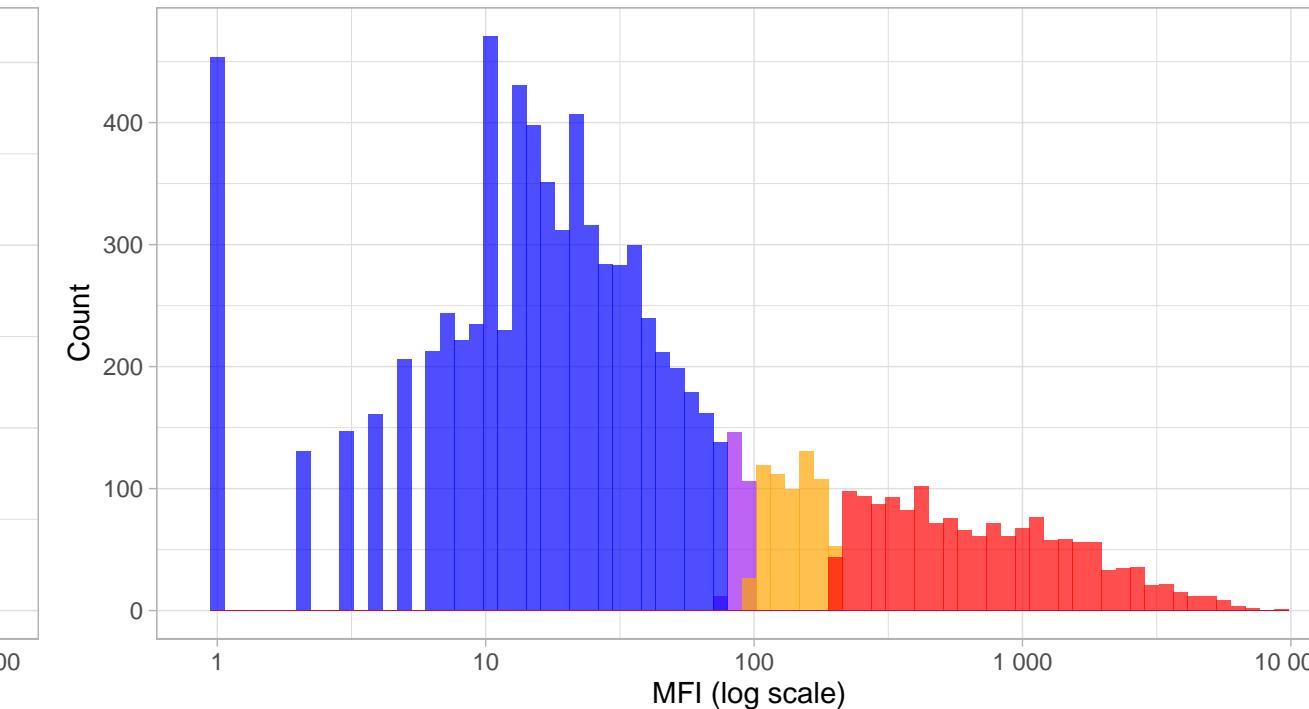


High-Confidence Seropositive Distribution: ct\_tarpf2

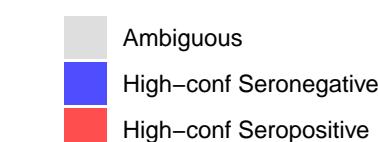


Phenotype Distribution by Classification: ct\_tarpf2

Comparing hard vs soft classifications



Classification

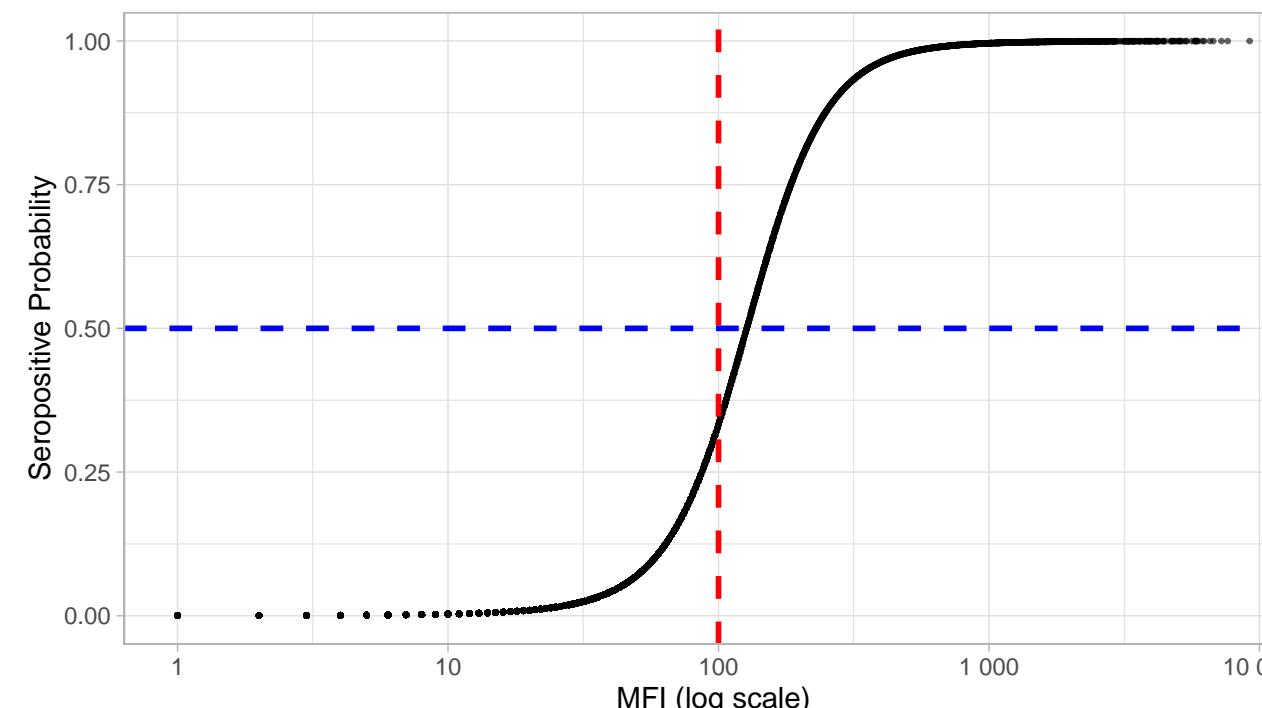


Classification



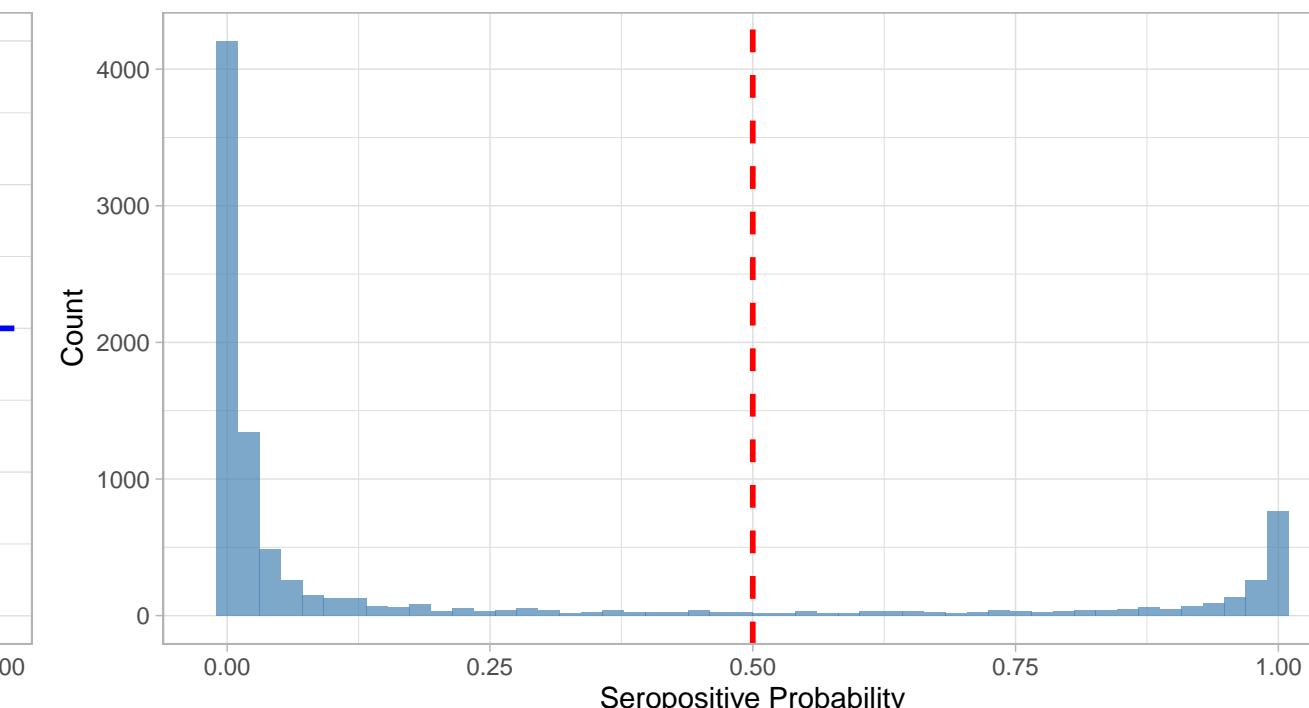
IgG Level vs Seropositive Probability: ct\_tarpf2

Red line = hard threshold, Blue line = 50% probability



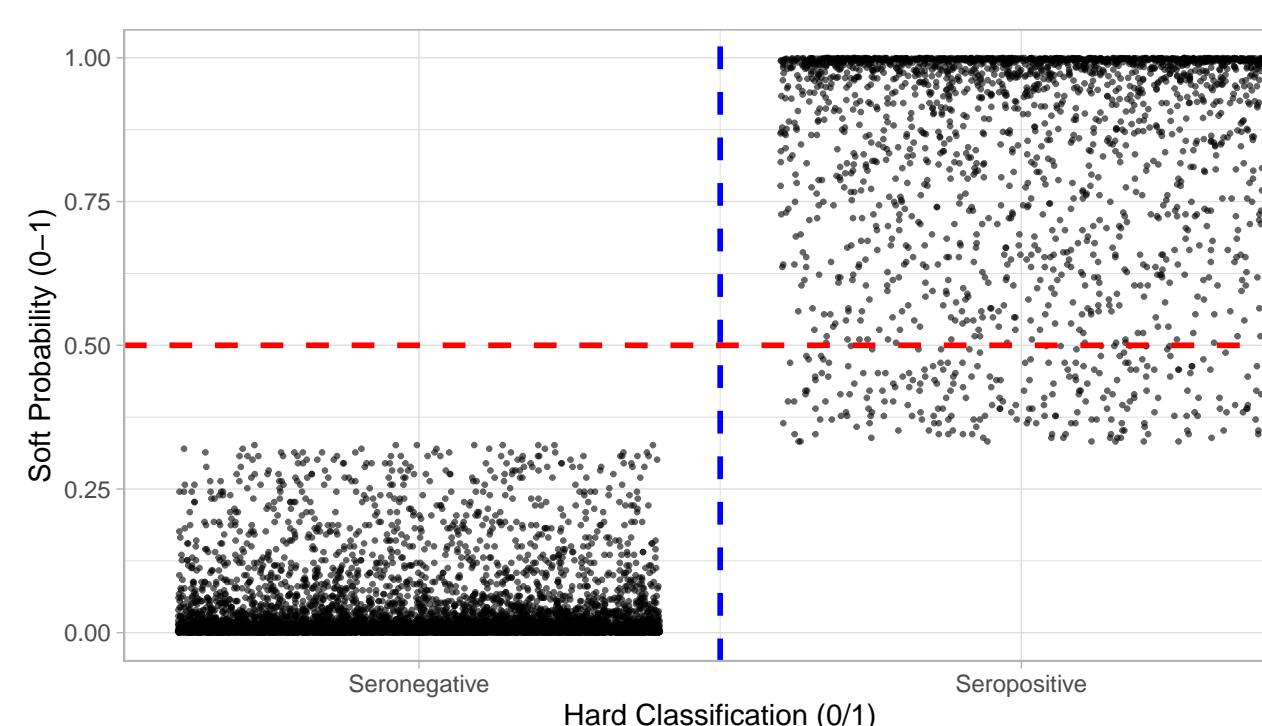
Distribution of Seropositive Probabilities: ct\_tarpf2

Red line = 50% threshold



Hard vs Soft Classification: ct\_tarpf2

Red line = 50% soft threshold, Blue line = hard threshold



PC1 Components vs IgG Level: ct\_tarpf2

Top: PC1\_assay\_noise (seroneg), Bottom: PC1\_seropositive (seropos)

