

WT Validation Cohort

Before CombatSeq

Mucosal Dataset

```
Permutation: free
Number of permutations: 10000

Terms added sequentially (first to last)
```

	Df	SumsOfSqs	MeanSqs	F.Model	R2	Pr(>F)	
Sequencing_Run	1	0.943	0.943	0.681	0.00338	0.5159	
Sex	1	4.211	4.211	3.042	0.01508	0.0459	*
Site_General	1	92.763	92.763	67.012	0.33218	9.999e-05	***
Residuals	131	181.339	1.384		0.64937		
Total	134	279.256			1.00000		

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```
Permutation: free
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Terms added sequentially (first to last)
```

	Df	SumsOfSqs	MeanSqs	F.Model	R2	Pr(>F)	
Sequencing_Run	1	0.943	0.943	0.678	0.00338	0.5087	
Sex	1	4.211	4.211	3.029	0.01508	0.0470	*
Site_General	1	92.763	92.763	66.731	0.33218	9.999e-05	***
Sex:Site_General	1	0.626	0.626	0.450	0.00224	0.6451	
Residuals	130	180.713	1.390		0.64712		
Total	134	279.256			1.00000		

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Mucosal Colon

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Terms added sequentially (first to last)
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	Df	SumsOfSqs	MeanSqs	F.Model	R2	Pr(>F)
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```
Sequencing_Run 1 35.075 35.075 35.472 0.25510 9.999e-05 ***
Sex 1 0.387 0.387 0.391 0.00281 0.6833
Site 2 39.741 19.871 20.095 0.28903 9.999e-05 ***
Residuals 63 62.296 0.989 0.45306
Total 67 137.499 1.00000
```

```
Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
Permutation: free
```

```
Number of permutations: 10000
```

```
Terms added sequentially (first to last)
```

	Df	SumsOfSqs	MeanSqs	F.Model	R2	Pr(>F)
Sequencing_Run	1	35.075	35.075	34.989	0.25510	9.999e-05 ***
Sex	1	0.387	0.387	0.386	0.00281	0.6828
Site	2	39.741	19.871	19.822	0.28903	9.999e-05 ***
Sex:Site	2	1.146	0.573	0.572	0.00833	0.6843
Residuals	61	61.150	1.002		0.44473	
Total	67	137.499			1.00000	

```
Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

Mucosal SI

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Permutation: free
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Number of permutations: 10000
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```
Terms added sequentially (first to last)
```

	Df	SumsOfSqs	MeanSqs	F.Model	R2	Pr(>F)
Sequencing_Run	1	1.545	1.5445	0.8068	0.01091	0.4535546
Sex	1	3.093	3.0931	1.6157	0.02185	0.1976802
Site	2	18.201	9.1004	4.7536	0.12860	0.0008999 ***
Residuals	62	118.694	1.9144		0.83864	
Total	66	141.533			1.00000	

```
Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

After CombatSeq

Mucosal

Permutation: free

Number of permutations: 10000

Terms added sequentially (first to last)

	Df	SumsOfSqs	MeanSqs	F.Model	R2	Pr(>F)	
Sequencing_Run	1	5.499	5.499	3.970	0.01953	0.0163	*
Sex	1	4.435	4.435	3.201	0.01575	0.0387	*
Site_General	1	88.816	88.816	64.110	0.31538	9.999e-05	***
Residuals	132	182.868	1.385		0.64935		
Total	135	281.618			1.00000		

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Mucosal Colon

Permutation: free

Number of permutations: 10000

Terms added sequentially (first to last)

	Df	SumsOfSqs	MeanSqs	F.Model	R2	Pr(>F)	
Sequencing_Run	1	61.042	61.042	79.796	0.44347	9.999e-05	***
Sex	1	0.065	0.065	0.085	0.00047	0.9293	
Site	2	28.345	14.172	18.526	0.20592	9.999e-05	***
Residuals	63	48.194	0.765		0.35013		
Total	67	137.646			1.00000		

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Mucosal SI

Permutation: free

Number of permutations: 10000

Terms added sequentially (first to last)

	Df	SumsOfSqs	MeanSqs	F.Model	R2	Pr(>F)	
Sequencing_Run	1	1.986	1.9857	1.0291	0.01380	0.35976	
Sex	1	4.566	4.5661	2.3663	0.03172	0.09069	.
Site	2	15.813	7.9063	4.0974	0.10986	0.00280	**
Residuals	63	121.564	1.9296		0.84461		
Total	67	143.928			1.00000		

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Permutation: free

Number of permutations: 10000

Terms added sequentially (first to last)

	Df	SumsOfSqs	MeanSqs	F.Model	R2	Pr(>F)
Sequencing_Run	1	1.986	1.9857	1.0402	0.01380	0.36236
Sex	1	4.566	4.5661	2.3920	0.03172	0.09289 .
Site	2	15.813	7.9063	4.1418	0.10986	0.00200 **
Sex:Site	2	5.120	2.5600	1.3411	0.03557	0.25347
Residuals	61	116.444	1.9089		0.80904	
Total	67	143.928			1.00000	

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1