

Protein Signatures of Seminal Plasma from Bulls with Contrasting Frozen-Thawed Sperm Viability

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Supplemental Table 3. Analyses of variance, parameter estimates and fit diagnostics of regression analyses carried out on SAS University Edition, using a stepwise approach. For the regression models (summarized in Table 3), the frozen-thawed sperm viability (freezability score) of bulls was set as the dependent variable and abundances of seminal plasma proteins with the highest VIP scores (as shown in Figure 2), as the independent variables. Q9BGI1L and P29392L: log-transformed abundances of peroxiredoxin-5 (accession # Q9BGI1) and spermadhesin-1 (accession # P29392), respectively. P81019 and P81019L: abundances and log-transformed abundances of BSP5 (accession # P81019).

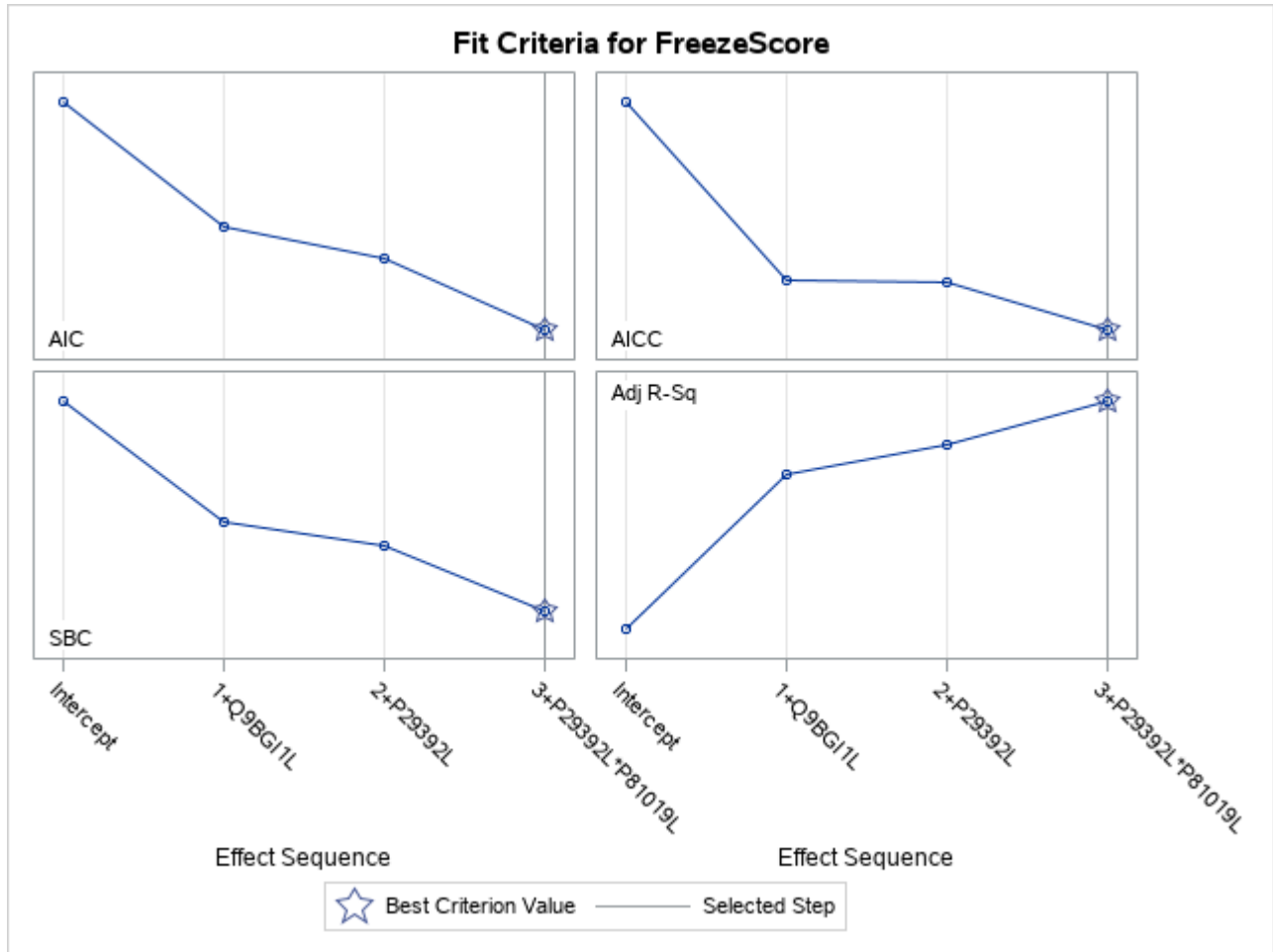
Data Set	WORK.IMPORTPLAN4ANDLOG
Dependent Variable	FreezeScore
Selection Method	Stepwise
Select Criterion	SBC
Stop Criterion	SBC
Effect Hierarchy Enforced	None

Number of Observations Read	14
Number of Observations Used	14

Dimensions	
Number of Effects	4
Number of Parameters	4

Stepwise Selection Summary				
Step	Effect Entered	Effect Removed	Number Effects In	SBC
0	Intercept		1	50.0757
1	Q9BG1L		2	42.0419
2	P29392L		3	40.5569
3	P29392L*P81019L		4	36.1779*
* Optimal Value of Criterion				

Selection stopped because all effects are in the final model.



Selected Model

The selected model is the model at the last step (Step 3).

Effects: Intercept P29392L Q9BG11L P29392L*P81019L

Note: The p-values for parameters and effects are not adjusted for the fact that the terms in the model have been selected and so are generally liberal.

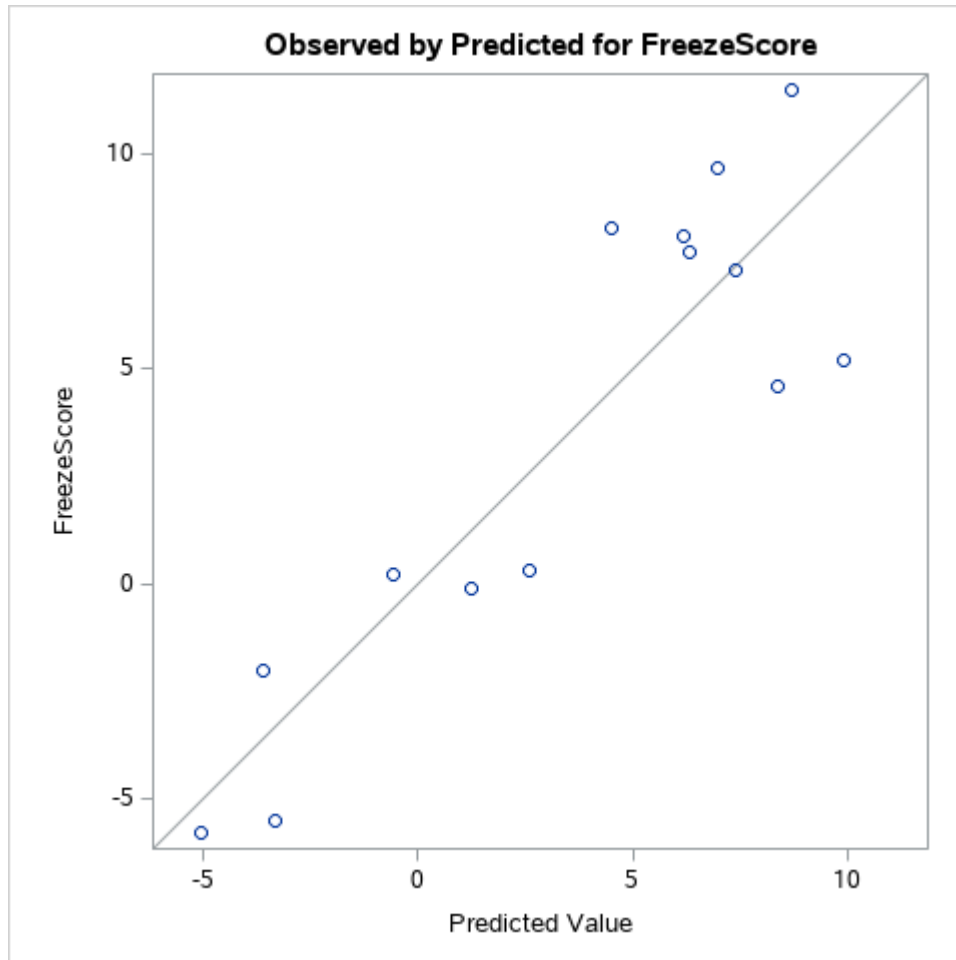
Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	327.34750	109.11583	12.50	0.0010
Error	10	87.28465	8.72846		
Corrected Total	13	414.63214			

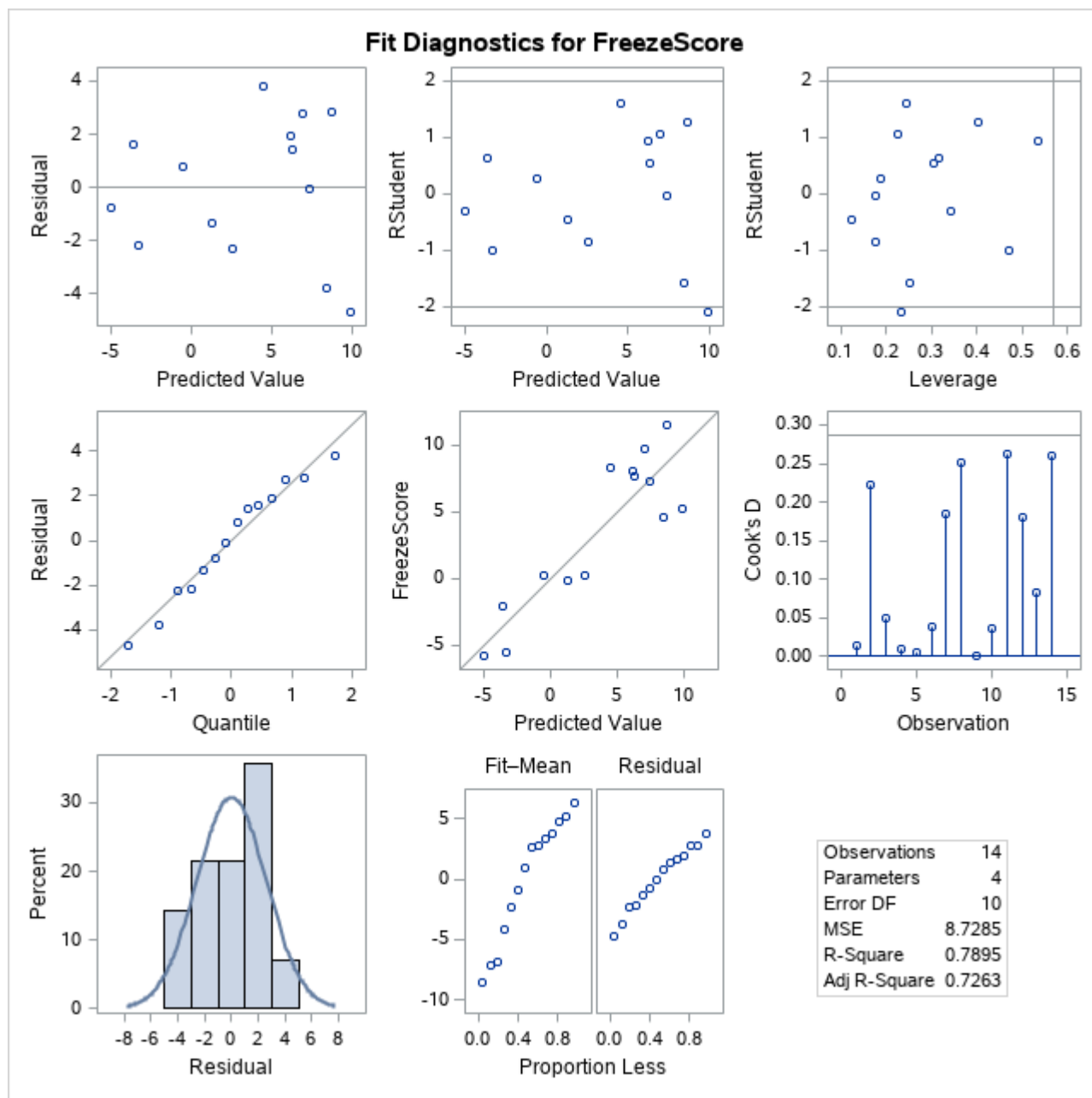
Root MSE	2.95440
Dependent Mean	3.53571
R-Square	0.7895
Adj R-Sq	0.7263
AIC	49.62164
AICC	57.12164
SBC	36.17787

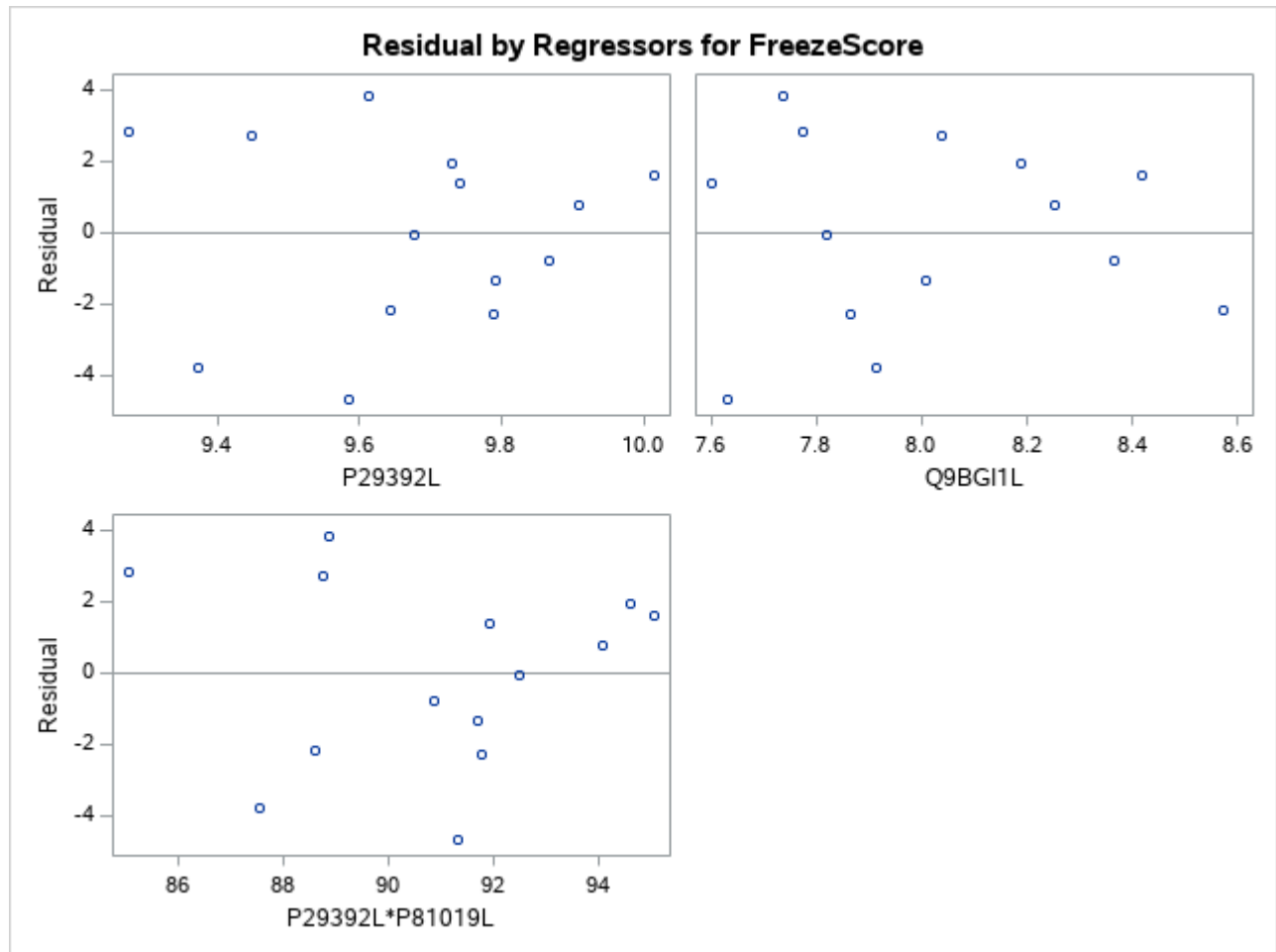
Parameter Estimates					
Parameter	DF	Estimate	Standard Error	t Value	Pr > t

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Parameter	DF	Estimate	Standard Error	t Value	Pr > t
Intercept	1	221.301878	40.724327	5.43	0.0003
P29392L	1	-30.270225	8.902829	-3.40	0.0068
Q9BG1L	1	-7.814084	3.166969	-2.47	0.0333
P29392L*P81019L	1	1.515310	0.593961	2.55	0.0288

Model: MODEL1
Dependent Variable: FreezeScore FreezeScore







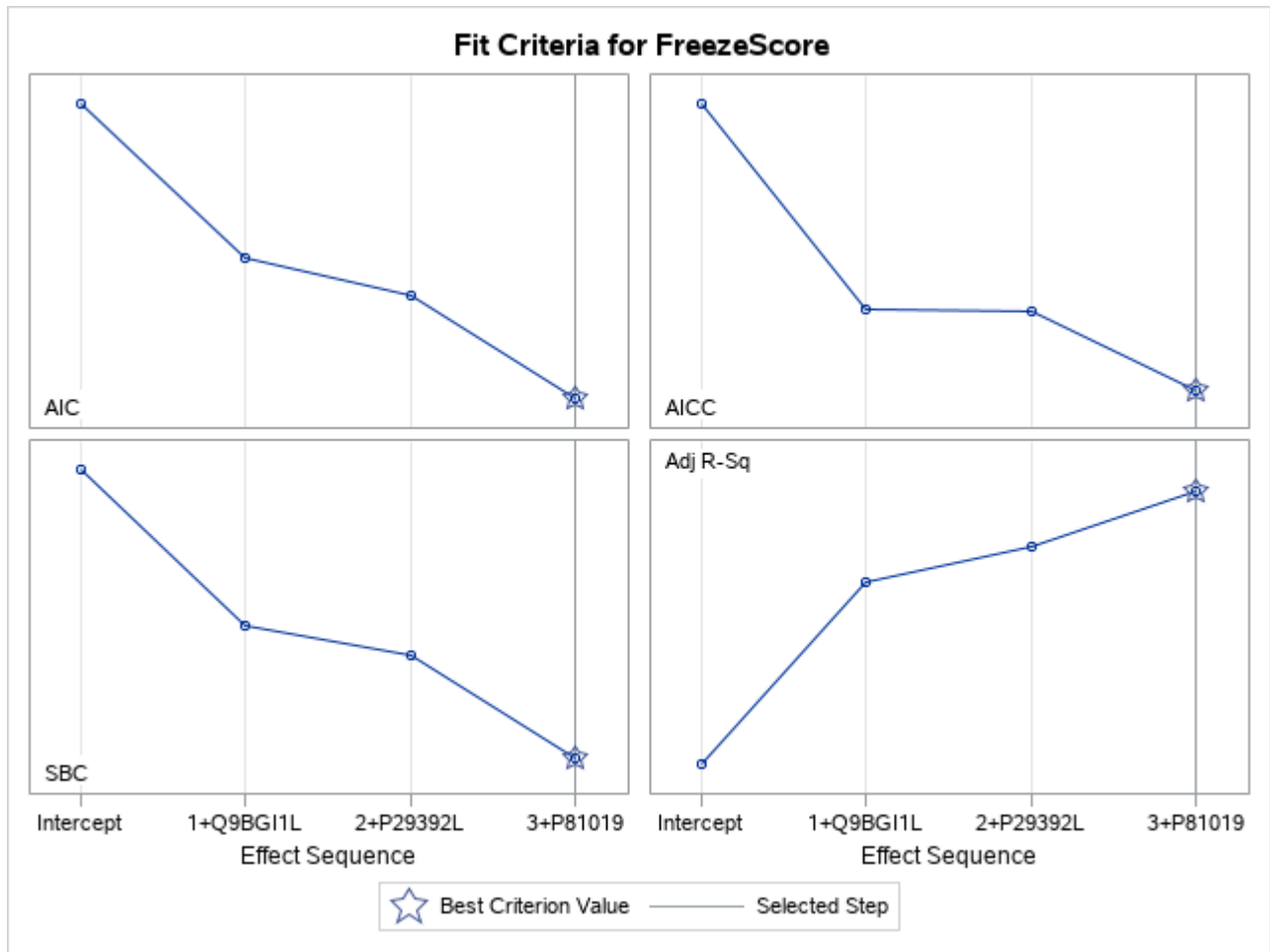
Data Set	WORK.IMPORTPLAN4ANDLOG
Dependent Variable	FreezeScore
Selection Method	Stepwise
Select Criterion	SBC
Stop Criterion	SBC
Effect Hierarchy Enforced	None

Number of Observations Read	14
Number of Observations Used	14

Dimensions	
Number of Effects	4
Number of Parameters	4

Stepwise Selection Summary				
Step	Effect Entered	Effect Removed	Number Effects In	SBC
0	Intercept		1	50.0757
1	Q9BGI1L		2	42.0419
2	P29392L		3	40.5569
3	P81019		4	35.3358*
* Optimal Value of Criterion				

Selection stopped because all effects are in the final model.



Selected Model

The selected model is the model at the last step (Step 3).

Effects: Intercept Q9BG11L P81019 P29392L

Note: The p-values for parameters and effects are not adjusted for the fact that the terms in the model have been selected and so are generally liberal.

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	332.44248	110.81416	13.48	0.0008
Error	10	82.18967	8.21897		
Corrected Total	13	414.63214			

Root MSE	2.86687
Dependent Mean	3.53571
R-Square	0.8018
Adj R-Sq	0.7423
AIC	48.77961
AICC	56.27961
SBC	35.33584

Parameter Estimates					
Parameter	DF	Estimate	Standard Error	t Value	Pr > t

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Parameter	DF	Estimate	Standard Error	t Value	Pr > t
Intercept	1	212.062253	38.441654	5.52	0.0003
Q9BG1L	1	-8.614414	2.993342	-2.88	0.0164
P81019	1	2.2628731E-9	8.245296E-10	2.74	0.0207
P29392L	1	-15.033786	4.623548	-3.25	0.0087

Model: MODEL1
Dependent Variable: FreezeScore FreezeScore

