

**Phylogenetic Signal Results, Primate Dataset (N=155)**

<b>Character</b>	<b>Pagel's lambda</b>	<b>p-value</b>	<b>Blomberg's <i>K</i></b>	<b>p-value</b>	<b>Sample size</b>
LogLS	0.999934	<b>6.24112e-58</b>	0.631085	<b>0.001</b>	155
LS	0.999934	<b>3.48079e-57</b>	0.617439	<b>0.001</b>	155
LogG	0.985178	<b>1.42447e-43</b>	0.598141	<b>0.001</b>	120
LogAW	0.977919	<b>1.30482e-55</b>	0.789695	<b>0.001</b>	151
LogBrain	0.989482	<b>9.94717e-65</b>	1.47352	<b>0.001</b>	137
Brain	0.999934	<b>3.98275e-21</b>	0.244817	0.004	137
LogML	0.948994	<b>1.806e-24</b>	0.197976	<b>0.001</b>	124
ML	0.928062	<b>2.92926e-19</b>	0.191741	<b>0.001</b>	124
LogPGR	0.989534	<b>1.81521e-45</b>	1.39111	<b>0.001</b>	97
LogBBR	0.894619	<b>3.85095e-17</b>	0.15802	<b>0.001</b>	137
BBR	0.879276	<b>6.26946e-17</b>	0.144077	<b>0.001</b>	137
EQ	0.779806	<b>1.1794e-14</b>	0.163693	<b>0.001</b>	137
PEQ	0.798959	<b>1.84771e-16</b>	0.197265	<b>0.001</b>	137
PGN	0.158834	0.400855	0.0802558	0.465	34
LogNBrain	0.999934	<b>3.12757e-15</b>	2.19325	<b>0.001</b>	34

**LogLS (N=155)****Phylogenetic signal lambda** : 0.999934

logL(lambda) : 247.283

LR(lambda=0) : 257.428

P-value (based on LR test) : 6.24112e-58

**Phylogenetic signal K** : 0.631085

P-value (based on 1000 randomizations) : 0.001

**LS (N=155)****Phylogenetic signal lambda** : 0.999934

logL(lambda) : 58.4921

LR(lambda=0) : 254.003

P-value (based on LR test) : 3.48079e-57

**Phylogenetic signal K** : 0.617439

P-value (based on 1000 randomizations) : 0.001

**LogG (n=120)****Phylogenetic signal lambda** : 0.985178

logL(lambda) : 185.005

LR(lambda=0) : 191.597

P-value (based on LR test) : 1.42447e-43  
**Phylogenetic signal K** : 0.598141  
P-value (based on 1000 randomizations) : 0.001

#### **LogAW (n=151)**

**Phylogenetic signal lambda** : 0.977919  
logL(lambda) : -19.9902  
LR(lambda=0) : 246.784  
P-value (based on LR test) : 1.30482e-55  
**Phylogenetic signal K** : 0.789695  
P-value (based on 1000 randomizations) : 0.001

#### **LogBrain (n=137)**

**Phylogenetic signal lambda** : 0.989482  
logL(lambda) : 42.264  
LR(lambda=0) : 288.618  
P-value (based on LR test) : 9.94717e-65  
**Phylogenetic signal K** : 1.47352  
P-value (based on 1000 randomizations) : 0.001

#### **Brain (n=137)**

**Phylogenetic signal lambda** : 0.999934  
logL(lambda) : -807.2  
LR(lambda=0) : 88.9827  
P-value (based on LR test) : 3.98275e-21  
**Phylogenetic signal K** : 0.244817  
P-value (based on 1000 randomizations) : 0.004

#### **LogML (n=124)**

**Phylogenetic signal lambda** : 0.948994  
logL(lambda) : 105.384  
LR(lambda=0) : 104.225  
P-value (based on LR test) : 1.806e-24  
**Phylogenetic signal K** : 0.197976  
P-value (based on 1000 randomizations) : 0.001

#### **ML (n=124)**

**Phylogenetic signal lambda** : 0.928062  
logL(lambda) : -456.787  
LR(lambda=0) : 80.485  
P-value (based on LR test) : 2.92926e-19  
**Phylogenetic signal K** : 0.191741  
P-value (based on 1000 randomizations) : 0.001

**LogPGR (n=97)****Phylogenetic signal lambda** : 0.989534

logL(lambda) : 23.1679

LR(lambda=0) : 200.279

P-value (based on LR test) : 1.81521e-45

**Phylogenetic signal K** : 1.39111

P-value (based on 1000 randomizations) : 0.001

**LogBBR (n=137)****Phylogenetic signal lambda** : 0.894619

logL(lambda) : 63.6599

LR(lambda=0) : 70.8518

P-value (based on LR test) : 3.85095e-17

**Phylogenetic signal K** : 0.15802

P-value (based on 1000 randomizations) : 0.001

**BBR (n=137)****Phylogenetic signal lambda** : 0.879276

logL(lambda) : 509.951

LR(lambda=0) : 69.8903

P-value (based on LR test) : 6.26946e-17

**Phylogenetic signal K** : 0.144077

P-value (based on 1000 randomizations) : 0.001

**EQ (n=137)****Phylogenetic signal lambda** : 0.779806

logL(lambda) : -129.232

LR(lambda=0) : 59.5713

P-value (based on LR test) : 1.1794e-14

**Phylogenetic signal K** : 0.163693

P-value (based on 1000 randomizations) : 0.001

**PEQ (n=137)****Phylogenetic signal lambda** : 0.798959

logL(lambda) : 1.27518

LR(lambda=0) : 67.7588

P-value (based on LR test) : 1.84771e-16

**Phylogenetic signal K** : 0.197265

P-value (based on 1000 randomizations) : 0.001

**PGN (n=34)****Phylogenetic signal lambda** : 0.158834

logL(lambda) : 18.9616

LR(lambda=0) : 0.705759

P-value (based on LR test) : 0.400855

**Phylogenetic signal K** : 0.0802558

P-value (based on 1000 randomizations) : 0.465

**LogNBrain (n=34)****Phylogenetic signal lambda** : 0.999934

logL(lambda) : -0.766742

LR(lambda=0) : 62.1844

P-value (based on LR test) : 3.12757e-15

**Phylogenetic signal K** : 2.19325

P-value (based on 1000 randomizations) : 0.001