TABLE S1. List of variants*

9.1	G1594C - D532H						
9.2	T1418A - V473D	T1436 - I479K					
9.3	T1238A - F413Y						
9.4	T1250C - F417S	A1617T - NC					
9.5	A1235G - Q412R	A1314T - NC	A1642G - T548A	C1760T - A587V			
9.6	T1231A - F411I						
9.9	G1203A - NC	G1785T - W595C					
9.10	A1500G - NC	T1676C - M559T					
9.11	A1425T - NC	A1702C - T568P	A1769T - Q590L				
9.13	A1369C - N457H	A1720T - T574S					
9.14	T1340A - L447H	T1362C - NC	T1560C - NC	G1713A - NC			
9.16	A1775T - Q592L						
9.24	T1507C - W503R	T1521G - NC					
9.26	A1337G - Y446C	A1769C - Q590P					
9.33	A1667C - D556A						
9.34	A1534G - N512D	C1794T - NC					
9.35	A1289T - Q430L	T1450A - Y484N	C1494T - NC	A1515T - NC	C1794A - N598K	G1816A - V606I	
9.40	A1694T - E565V						
9.41	A1348T - T450S	T1362C - NC					
9.44	A1684C - N562H	A1701T - K567N	A1737G - NC				
9.45	A1492T - N498Y	C1804T - L602F					
9.46	G1441C - G481R	T1525C - W509R	T1549G - L517V				

Table continued in next page

TABLE S1 (continued)**.** List of variants*

9.47	G1241A - S414N	G1358A - G453D	A1669G - K557E	C1745T - T582I			
9.48	C1445T - P482L	A1736T - Q579L					
9.50	A1638T - Q546H	C1683T - NC	T1805A - L602H				
9.53	G1301A - R434Q	A1405C - S469R	C1664T - A555V	G1811T - G604V			
9.54	C1531A - L511I	T1609A - L537M					
9.55	T1605A - F535L						
9.58	C1475T - T492I	C1579A - H527N					
9.59	T1336C - Y446H						
9.61	A1493T - N498I						
9.64	C1531A - L511I	A1617T - NC					
9.65	C1335T - NC	T1530C - NC	C1568A - A523D				
9.68	C1510A - P504T						
9.80	G1441A - G481R						
9.83	A1314T - NC	A1694G - E565G	A1751T - H584L				
9.84	C1402A - P468T	A1500T - E500D					
9.87	T1464C - NC	T1468C - S490P					
9.90	A1196T - Y399F						
9.91	T1316G - L439R	A1583T - K528I	C1782G - NC	T1806C - NC			
9.93	A1273G - S425G	A1421G - Q474R	A1638C - Q546H	C1712T - P571L	G1732A - G578R	A1744T - T582S	A1832T - D611V
9.94	A1675T - M559L						
9.95	T1605A - F535L						

* List of point mutations in 43 viable AAV9 variants obtained after screening 95 clones. The remaining clones had stop codons, silent mutations, insertions and deletions leading to frame shift. **NC** - no change of amino acid (silent mutation)