Supplemental Table. *In vivo* phosphorylation sites on brain VGSCs and KGKCs identified by phosphoproteomic approaches

VOLTAGE-GATED SODIUM CHANNEL SUBUNITS

Nav1.1/Scn1a	W: A2APX6/mus	B: P04774-1/rat	Tr: A2APX6/mus			
ID I-II	T465					
ID I-II	S467					
ID I-II		S470				
ID I-II	S551	S551				
ID I-II			S565			
ID I-II	S607	S607				
ID I-II	S620					
ID I-II	T710					
ID I-II	T712					
ID I-II	S719					
C-term			S1928			
Nav1.2/Scn2a1	W: B1AWN6/mus	B: P04775-1/rat	T: B1AWN6/mus	Tr: A2AJZ2/mus		
N-term		S4				
ID I-II	S468	S468				
ID I-II	S471	S471				
ID I-II	S475					
ID I-II	S484	S484				
ID I-II	S486	S486				
ID I-II	S488					
ID I-II	S526					
ID I-II	S528	S528				
ID I-II			S540	S540		
ID I-II	S554	S554				
ID I-II	S558					
ID I-II	S561					
ID I-II				S568		
ID I-II	S573					
ID I-II	S576					
ID I-II		S579	S579	S579		
ID I-II	S610	S610				
ID I-II	S623	S623				
ID I-II	S626					
ID I-II		S687				
ID I-II		S688				
ID I-II	T713					
ID I-II	T715					
ID I-II	S722	S721				
C-term		S1930				
C-term	T1944					
C-term		T1966				
C-term		S1971				
Nav1.6/Scn8a	W: Q9WTU3/mus					
ID I-II	S504					
ID I-II	S518					
ID I-II	S520					
ID I-II	S522					
ID I-II	S600					
Nav1.9/Scn9a	W: Q62205/mus					
ID I-II	S502					
ID I-II	S504					
ID II-III	S1062					
ID II-III	S1064					
Navβ2/Scn2b	W: Q56A07/mus					
C-term	S192					
C-term	T193					
Navβ3/Scn3b	W: Q69ZQ3/mus					
C-term	S249					

VOLTAGE-GATED POTASSIUM CHANNEL SUBUNITS

Kv1.1/Kcna1	W: P16388					
N-term	S23					
Kv1.2/Kcna2	W: P63141/mus	Yg: P63142/rat	M: P63141/mus	T: P63141/mus	B: P63141/mus	
C-term			T421			
C-term					Y429	
C-term			T433			
C-term	S434	S434		S434		
C-term	S440	S440				
C-term	S441	S441		S441		
C-term	S447					
C-term		S449				
Kv1.4/Kcna4	W: Q61423/mus	M: Q61423/mus	Tr:Q8CBF8/mus			
N-term	S101					
N-term	S113					
N-term	S122	S122	S122			
Kv1.5/Kcna5	W: Q61762/mus					
C-term	S535					
Kv1.6/Kcna6	W: Q61923/mus	M: Q61923/mus				
N-term	S6					
N-term	T8	T8				
Kvβ1/Kcnab1	T: Q9D5E9/mus	Tr: P63143/mus				
Core		S145/S146				
C-term	S395					
Kvβ2/Kcnab2	W: P62482	M: P62482	Tr: A2A8L3/mus	B: P62482/mus	C: Q64284/mus	
N-term	S9	S9	S9			
N-term	S14					
N-term	T18		T18			
N-term	S20			S20	S20	
N-term				Y25		
Core	S111		S111/S112			
Core	S112		S111/S112			
C-term				Y360		
Kv2.1/Kcnb1	W: Q8K0D1/mus	P: P15387/rat	M: Q8K0D1/mus	T: Q8K0D1/mus	TR: Q03717/mus	
N-term			S12			
N-term		S15			S15	
C-term	S444					
C-term		S457				
C-term	S484	S484				
C-term		S496				
C-term		S503				
C-term	S517					
C-term	S518					
C-term	S519					
C-term	S520	S520				
C-term		S541				
C-term	S567	S567				
C-term		S590				
C-term		S607				
C-term	S655	S655	S655	S655	S655	
C-term		S719				
C-term		S771				
C-term	S782					
C-term		S799				
C-term	T803			T803		
C-term	S804	S804		S804		
C-term		T836				
Kv2.2/Kcnb2	W: A6H8H5					
C-term	T478					
C-term	S481					
C-term	S488					
C-term	S490					
C-term	S503					
C-term	S507					
C-term	S530					

Kv3.1/Kcnc1	W: P15388	T: P15388	Tr: Q3TR92/mus			
N-term	S158					
N-term	S160	S160				
C-term			T421			
C-term	S468					
C-term	T483					
Kv3.2/Kcnc2	W: P70311					
C-term	S509					
C-term	S557					
C-term	S604					
C-term	S619					
Kv3.3/Kcnc3	W: Q63959	Tr: Q63959				
C-term	S717	S717				
C-term	S732					
C-term	S740					
C-term	T751					
C-term	S755					
Kv3.4/Kcnc4	W: Q8R1C0/mus					
C-term	S555					
Kv4.1/Kcnd1	W: Q03719					
C-term	S460					
C-term	S555					
Kv4.2/Kcnd2	W: Q9Z0V2/mus	S: Q63881/rat	M: Q9Z0V2/mus	T: Q9Z0V2/mus		
N-term	T154					
C-term	S548	S548	S548			
C-term	S552	S552		S552		
C-term		S572				
C-term		S575				
Kv4.3/Kcnd3	W: Q9Z0V1/mus					
N-term	S153					
KChIP2/Kcnip2	W: Q3YAB2/mus	T: Q3YAB2				
N-term	S9					
N-term	S19	S19				
N-term	S76					
KChIP3/Kcnip3	W: Q9QXT8/mus					
N-term	S65					
Kv7.2/Kcnq2	W: NP_034741/mus	M: NP_034741/mus	T: NP_034741/mus	Tr: NP_034741/mus	Surti:O43526/human	
N-term	S52					
S4-S5 linker					T217	
C-term	S352		S352			
C-term	S457					
C-term	T462					
C-term	S466	S466				
C-term	S468	S468				
C-term	S476					
C-term			S485			
C-term	S507			S507		
C-term	Y671					
C-term	S673			S673		
C-term	T728					
C-term	S729					
C-term	S799					
C-term	S801					
Kv7.3/Kcnq3	W: Q8K3F6/mus	M: Q8K3F6/mus	Tr: Q14B66	Surti:O43526/human		
N-term	T82					
S4-S5 linker				T246		
C-term	S579					
C-term	T580		T577			
C-term	S596					
C-term	S599	S599				
Kv7.5/Kcnq5	W: Q9JK45/mus					
C-term	S469					
C-term	S477					

Slo1 BK/Kcnma1	W: Q08460-1/mus	W: Q08460-2/mus	Y: Q62976-2/rat	M: Q08460-1/mus	T: Q08460-1/mus	T: Q08460-2/mus
S0-S1 linker			S106	S136		
S0-S1 linker			S107			
C-term			S551			
C-term	T709	T670	T676			
C-term	S711	S672	S678	S711	S711	S672
C-term			S691			
C-term			T694			
C-term			S695			
C-term			S813			
C-term			S818			
C-term			S879			
C-term			T883			
C-term		S884	S890		S923	
C-term		S885	S891		S924	
C-term			S895		S928	
C-term	S938		S905			
C-term						
C-term		T995	T1001	T1061	T1061	
C-term		T998				
C-term			S1059			
C-term			S1101			
C-term			S1106			
C-term			S1112			
C-term			S1113			
C-term			S1116			
C-term			S1117			
C-term			S1118			
C-term			S1121			
C-term			S1124			
C-term			T1125			
Splice-variants specific sites from Yan et al.						
N-term	rat	S12	Q62976-1			
N-term	rat	S27	Q62976-1			
C-term	rat	T742	Q62976-4			
C-term	rat	S753	Q62976-4			
C-term	rat	S962	Q62976-1			
C-term	rat	S1177	Q62976-3			
C-term	rat	S1178	Q62976-3			

B: Ballif et al., 2008
C: Collins et al., 2005
M: Munton et al., 2007
P: Park et al., 2006
S: Seikel et al., 2008
T: Tweedie-Cullen et al., 2009
Tr: Trinidad et al., 2008
W: Wisniewski et al., 2010
Y: Yan et al., 2008
Yg: Yang et al., 2007