

Species and gene	Residue (Human <i>PRKAG1</i> numbering)				
	70	150	151	298	299
Human <i>PRKAG1</i>	R	H	R	H	R
<i>C. elegans aakg-1</i>	R	H	R	H	R
<i>C. elegans aakg-2</i>	R	H	R	H	R
<i>C. elegans aakg-3</i>	R	H	R	H	R
<i>C. elegans aakg-4</i>	I	S	F	S	S
<i>C. elegans aakg-5</i>	T	H	R	Q	S
<i>C. briggsae aakg-1</i> CBG11682	R	H	R	H	R
<i>C. briggsae aakg-2</i>	R	H	R	H	R
<i>C. briggsae aakg-3</i>	R	H	R	H	R
<i>C. briggsae aakg-4</i>	I	S	F	C	C
<i>C. briggsae aakg-5</i>	T	H	R	Q	S
<i>C. remanei CRE19909</i>	R	H	R	H	R
<i>C. remanei aakg-2</i>	R	H	R	H	R
<i>C. remanei aakg-3</i>	R	H	R	H	R
<i>C. remanei aakg-4</i>	I	S	F	S	C
<i>C. remanei aakg-5</i>	T	H	R	Q	S
<i>C. remanei CRE19910</i>	-	-	-	-	-
<i>C. brenneri CBN05184</i>	R	R	H	H	R
<i>C. brenneri Cbn-aakg-2</i>	R	H	R	H	R
<i>C. brenneri Cbn-aakg-3</i>	R	H	R	H	R
<i>C. brenneri Cbn-aakg-4</i>	I	S	F	S	S
<i>C. brenneri CBN19031</i>	T	H	R	Q	S
<i>C. japonica CJA14721a</i>	R	H	R	H	R
<i>C. japonica Cjp-aakg-2</i>	R	H	R	H	R
<i>C. japonica Cjp-aakg-3</i>	-	-	-	H	R
<i>C. japonica Cjp aakg-4</i>	I	S	F	N	C
<i>C. japonica CJA32986b</i>	R	-	-	-	-
<i>P. pacificus 1</i>	R	H	R	-	-
<i>P. pacificus 2</i>	R	H	R	H	R
<i>P. pacificus 3</i>	R	H	R	Y	R
<i>P. pacificus 4</i>	S	H	R	-	-
<i>P. pacificus 5</i>	G	-	-	-	-
<i>H. contortus 00980100.t1 1</i>	R	H	R	H	R
<i>H. contortus 02057000.t2 1</i>	R	H	R	H	R
<i>H. contortus 00002900.t1 1</i>	R	H	R	Q	R
<i>H. contortus 01835300.t1 1</i>	R	H	R	M	R
<i>H. contortus 00949100.t3 1</i>	Q	H	R	-	-

**Table S2. AMP/ATP binding residues in Rhabditida.**