SUPPLEMENTARY MATERIAL for ^{1}H, ^{15}N, ^{13}C, and ^{13}CO Assignments and Secondary Structure Determination of RGS4 by Franklin J. Moy, Pranab K. Chanda, Mark I. Cockett, Scott Cosmi, Wade Edris, Philip G. Jones, and Robert Powers

Table S1 ^{15}N, ^{13}C, ^{13}CO and ^{1}H resonance assignments for RGS4 at pH 6.0 and 30°C.[a]

Residue	N	CO	Cα	Cβ	Others
M1	- (-)	176.1	55.9 (4.30)	29.4 (2.10,2.00)	Cγ 33.9 (2.38)
R2	123.0 (8.34)	177.2	56.7 (4.29)	33.0 (1.84,1.77)	Cγ 24.8 (1.45);Cδ 29.2 (1.71);Cε 42.2 (3.00)
G3	110.4 (8.40)	173.7	45.3 (4.00)		
S4	115.7 (8.23)	174.0	58.1 (4.59)	64.2 (3.90)	
V5	121.6 (8.20)	174.9	61.2 (4.38)	33.6 (1.99)	Cγ 21.7 (0.98);21.9 (0.89)
S6	122.3 (8.56)	175.1	57.5 (4.51)	65.3 (4.33,4.02)	
Q7	121.5 (8.95)	178.2	58.5 (3.80)	28.3 (2.02)	Cγ 34.3 (2.39)
E8	118.9 (8.48)	178.8	59.7 (3.85)	29.1 (2.01,1.94)	Cγ 36.6 (2.29)
E9	120.5 (7.43)	177.0	58.9 (3.77)	29.4 (2.04,1.72)	Cγ 36.4 (2.23,2.04)
V10	116.8 (7.16)	180.8	65.0 (1.84)	31.4 (1.54)	Cγ 21.7 (0.36);22.6 (0.34)
K11	122.0 (7.86)	179.6	59.9 (3.92)	32.1 (1.82)	Cγ 25.4 (1.52,1.37);Cδ 29.4 (1.62); Cε 42.1 (2.91,2.79)
K12	120.0 (7.39)	180.4	59.1 (4.09)	31.7 (2.12,1.93)	Cγ 25.4 (1.52,1.45); Cδ 29.2 (1.68); Cε 42.0 (2.99)
W13	120.7 (7.84)	176.7	57.2 (4.63)	29.8 (3.46)	Cδ1 126.4 (6.67); Nε1 129.3(9.69); Cζ2 113.9(6.25); Cη2 124.0(6.81); Cζ3 121.3(7.18); Cε3 117.5 (6.88)
A14	117.5 (7.48)	176.9	52.3 (4.36)	18.6 (1.52)	
E15	117.5 (7.80)	177.1	57.6 (4.29)	30.9 (2.16)	Cγ 36.6 (2.48,2.25)
S16	111.6 (7.02)	173.6	57.5 (4.50)	65.0 (4.22,3.93)	
L17	125.4 (8.36)	177.5	57.1 (3.17)	39.5 (0.97,-0.19)	Cγ 26.2 (0.65);Cδ 25.9 (-0.48);23.9 (-0.08)
E18	117.2 (8.68)	177.7	60.1 (3.63)	29.3 (1.98,1.91)	Cγ 36.5 (2.19)
N19	116.0 (7.53)	176.9	55.3 (4.37)	38.4 (3.20,2.78)	
L20	119.5 (7.01)	176.4	58.2 (3.50)	41.8 (1.79,1.63)	Cγ 24.7 (0.52);Cδ 26.9 (-0.03);24.9 (0.33)
I21	105.6 (7.37)	175.1	63.3 (3.65)	37.1 (1.61)	Cγm 19.2(0.33);Cγ (0.70,0.81); Cδ 12.3(-0.62)
N22	115.7 (7.10)	173.8	53.9 (4.76)	39.5 (2.88)	
H23	121.6 (7.32)	176.0	56.4 (4.71)	33.9 (3.31,2.98)	Cδ2 119.4 (7.55) Cε1 138.6 (8.15)
E24	128.2 (9.04)	179.5	60.6 (4.07)	29.8 (2.09)	Cγ 36.1 (2.44,2.34)
C25	121.4 (10.57)	176.9	61.8 (4.46)	27.3 (3.37)	
G26	114.1 (7.36)	-	46.6 (2.86,2.45)		
L27	122.8 (8.66)	178.3	58.2 (3.76)	41.4 (1.72,1.65)	Cγ 27.1 (1.60);Cδ 25.6 (1.05); 23.5 (1.04)
A28	118.3 (7.29)	180.8	55.3 (4.06)	18.4 (1.60)	
A29	122.8 (7.85)	178.9	55.3 (4.51)	18.2 (1.84)	

F30	120.0 (8.51)	177.8	59.1 (3.94)	39.5 (2.62,2.38)	Cδ - (6.34)
K31	118.9 (9.02)	177.5	60.6 (3.59)	32.4 (1.94,1.74)	Cγ 26.0 (1.70,1.44);Cδ - (1.63);Cε - (2.96)
A32	121.6 (7.82)	180.3	55.3 (3.98)	17.8 (1.61)	
F33	121.5 (7.82)	177.8	59.9 (4.39)	39.2 (3.18,2.00)	Cδ - (7.18);Cε - (6.78)
L34	122.0 (8.57)	180.0	57.6 (3.34)	40.2 (0.88)	Cγ 26.2 (1.01);Cδ 21.8 (0.57); 26.3 (0.19)
K35	120.9 (8.60)	180.1	59.6 (3.90)	32.1 (1.79)	Cγ 24.9 (1.54,1.39);Cε - (2.93)
S36	116.7 (7.43)	174.1	61.1 (4.09)	63.1 (4.04,2.38)	
E37	118.0 (6.86)	175.3	55.3 (4.28)	29.9 (1.98,1.45)	Cγ 35.9 (1.66)
Y38	118.8 (7.60)	175.8	58.7 (4.37)	35.5 (3.27,3.09)	Cδ 133.4 (7.04);Cε 118.2 (6.84)
S39	113.0 (8.05)	175.5	57.0 (5.04)	64.5 (3.83,3.71)	
E40	122.2 (9.07)	175.9	58.2 (3.86)	30.2 (1.96,1.75)	Cγ 36.9 (2.20)
E41	122.3 (10.22)	177.2	60.9 (4.25)	27.7 (2.13,1.98)	Cγ 35.6 (2.37)
N42	116.4 (7.67)	176.9	56.7 (4.52)	38.8 (2.68)	
I43	117.6 (6.99)	176.2	58.9 (4.52)	38.3 (1.58)	Cγ 30.5(1.58,1.55) Cγm 20.7 (1.05); Cδ 14.6 (0.92)
D44	126.2 (8.38)	179.6	57.6 (4.59)	39.1 (2.85)	
F45	123.8 (8.40)	176.5	60.2 (4.37)	39.0 (2.98,2.50)	Cδ - (6.67)
W46	122.3 (7.98)	177.7	64.9 (4.39)	29.9 (3.78,3.21)	Nε1 130.7 (10.68);Cζ2 115.1 (7.25); Cη2 125.8 (7.01);Cζ3 122.9(7.01); Cε3 119.9 (7.35)
I47	118.2 (9.04)	178.4	65.1 (3.37)	38.6 (2.02)	Cγm 17.0 (0.95);Cγ 29.4 (2.24,1.46); Cδ 14.3 (1.07)
S48	117.4 (7.91)	176.6	62.8 (4.22)	- (3.89,3.67)	
C49	120.4 (7.53)	179.6	64.0 (3.90)	- (3.61)	
E50	120.1 (7.39)	179.1	58.8 (3.58)	29.0 (1.65)	Cγ 35.2 (-)
E51	118.3 (7.93)	180.0	59.0 (3.84)	29.7 (2.21,1.95)	Cγ 36.3 (2.15)
Y52	123.0 (8.11)	175.6	61.2 (3.95)	38.7 (3.30,2.95)	Cδ - (7.03);Cε 118.5 (7.15)
K53	112.6 (7.43)	177.1	58.2 (3.89)	32.2 (1.86,1.76)	Cγ - (1.54,1.39)
K54	117.5 (7.18)	176.9	56.1 (4.17)	33.1 (1.98,1.71)	Cγ 25.4 (-);Cδ 29.4 (1.60);Cε 42.2 (-)
I55	123.1 (7.39)	176.8	64.0 (3.58)	37.2 (1.74)	Cγm 19.4 (0.75);Cδ 14.5 (0.91)
K56	126.5 (8.39)	176.7	56.3 (4.34)	33.6 (1.95,1.72)	Cγ 24.6 (1.40);Cδ 28.7 (1.64);Cε 42.1 (3.00)
S57	116.2 (7.35)	-	54.6 (4.98)	64.0 (3.79)	
P58	- (-)	178.8	65.0 (4.19)	32.1 (2.45,2.06)	Cγ 27.5 (2.17,2.06);Cδ 51.4 (4.11,3.98)
S59	112.3 (8.15)	175.5	60.5 (4.32)	62.7 (3.90)	
K60	119.7 (7.77)	177.6	56.3 (4.36)	33.2 (2.03,1.89)	Cγ 25.7 (1.55,1.41);Cδ 29.0 (1.71);I Cε 42.4 (2.98)
L61	120.4 (7.49)	178.5	58.7 (4.12)	41.3 (1.82,1.71)	Cγ 26.8 (1.67);Cδ 25.9 (0.74);23.2 (0.35)
S62	112.7 (8.67)	-	64.0 (4.38)	60.8 (4.08)	
P63	- (-)	180.0	66.0 (4.39)	30.8 (2.42,1.95)	Cγ 28.2 (2.21,2.13); Cδ 49.7 (3.75)
K64	118.0 (7.08)	178.0	57.9 (4.36)	31.9 (2.26)	Cδ 28.5 (2.02,1.79); Cε 41.9 (2.95)
A65	122.5 (9.23)	179.9	55.5 (4.19)	17.7 (1.76)	
K66	116.9 (8.40)	178.4	60.2 (3.99)	32.4 (1.93)	Cγ 25.8 (1.43);Cδ 29.2 (1.68);Cε 42.1 (3.00)
K67	119.5 (7.52)	179.6	59.9 (4.14)	32.7 (2.09)	Cγ 25.2 (1.66,1.52)
I68	120.9 (8.24)	178.4	65.9 (3.87)	38.3 (2.08)	Cγ 29.8 (1.62,0.88) Cγm 17.5 (0.30);

					Cδ 14.5 (0.41)
Y69	120.8 (9.15)	178.6	62.4 (3.99)	39.5 (3.52,3.26)	Cδ 133.4 (7.07);Cε 117.9 (6.78)
N70	117.5 (8.77)	176.0	55.7 (4.42)	38.4 (2.99,2.78)	Nγ 112.0 (7.59,6.97)
E71	118.4 (7.88)	176.4	58.8 (4.00)	30.6 (1.76,1.37)	Cγ 35.9 (1.80,1.09)
F72	110.4 (7.76)	175.1	58.5 (4.95)	43.4 (2.77,2.58)	Cδ 133.6 (7.75);Cε 131.5 (7.35);Cζ - (7.11)
I73	116.5 (7.59)	175.3	61.3 (4.05)	38.0 (1.59)	Cγ 27.2 (1.43,1.03);Cγm 18.5 (0.79); Cδ 12.0 (0.76)
S74	113.4 (7.43)	174.6	57.7 (3.89)	64.1 (3.88,3.44)	
V75	120.6 (8.20)	177.1	64.4 (3.99)	31.3 (2.18)	Cγ 20.3 (1.02);21.1 (1.02)
Q76	118.6 (8.10)	175.4	55.7 (4.29)	28.2 (2.23,1.87)	Cγ 34.6 (2.30)
A77	124.1 (7.54)	178.7	52.8 (4.11)	18.8 (1.10)	
T78	114.8 (7.99)	175.6	64.0 (4.05)	68.8 (4.11)	Cγ 22.6 (1.27)
K79	123.8 (7.89)	173.4	54.6 (4.47)	33.1 (1.76,1.39)	Cγ 25.2 (1.27);Cδ 29.7 (1.64,1.51); Cε 42.0 (2.84)
E80	117.8 (7.16)	176.2	56.6 (3.97)	30.0 (1.82)	Cγ 34.5 (2.69,2.19)
V81	119.3 (8.22)	176.3	59.5 (4.56)	33.4 (2.01)	Cγ 22.5 (0.89);17.5 (0.34)
N82	122.5 (9.09)	173.7	53.2 (4.64)	37.5 (2.89,2.63)	
L83	122.7 (7.43)	176.1	53.1 (4.52)	46.3 (1.49,1.34)	Cγ 26.4 (1.52); Cδ 24.3 (0.94) 26.3 (0.73)
D84	120.3 (8.27)	176.3	53.2 (4.66)	41.7 (3.03,2.79)	
S85	116.6 (8.93)	176.7	62.5 (4.00)	- (4.01)	
C86	121.4 (8.36)	177.9	62.4 (4.30)	26.1 (3.07)	
T87	120.2 (8.35)	178.5	67.0 (4.06)	67.0 (4.06)	Cγ 22.7 (1.22)
R88	125.5 (8.55)	178.2	61.6 (3.73)	29.9 (1.98,1.91)	Cγ - (1.51,1.67); Cδ 43.3 (3.18,3.02)
E89	121.1 (8.49)	179.5	59.6 (4.12)	29.2 (2.17,2.08)	Cγ 36.2 (2.39)
E90	121.2 (8.44)	178.5	59.5 (4.01)	29.4 (2.17)	Cγ 35.6 (2.40)
T91	115.1 (8.10)	175.8	67.8 (3.91)	68.4 (4.42)	Cγ 22.3 (1.43)
S92	116.6 (8.32)	176.6	62.4 (3.90)	62.7 (4.09,3.99)	
R93	122.3 (7.84)	179.6	59.3 (4.05)	29.9 (1.95,1.91)	Cγ 27.9 (1.82,1.60);Cδ 43.5 (3.23)
N94	121.6 (8.10)	176.7	54.9 (4.33)	38.6 (3.18)	
M95	115.7 (7.40)	176.9	55.1 (4.07)	31.3 (1.98,1.77)	Cγ 31.7 (2.29,1.94); Cε 15.3 (1.67)
L96	119.8 (7.29)	178.4	57.7 (4.02)	41.5 (1.80,1.55)	Cγ 27.0 (1.80);Cδ 23.0 (0.85); 24.8 (0.95)
E97	116.6 (7.20)	-	53.8 (4.52)	30.1 (1.92,1.85)	Cγ 36.1 (2.10)
P98	- (-)	176.9	64.4 (4.34)	32.1 (2.26,1.93)	Cγ 27.9 (2.08);Cδ 49.9 (3.59)
T99	113.7 (8.43)	179.1	59.6 (4.79)	72.5 (4.60)	Cγ 21.1 (1.30)
I100	123.2 (9.19)	176.1	63.2 (4.22)	39.6 (1.97)	Cγm 19.1 (1.04);Cγ 28.5 (1.47,1.39); Cδ 14.8 (0.90)
T101	109.8 (7.61)	176.2	61.5 (4.57)	69.3 (4.63)	Cγ 21.7 (1.20)
C102	122.7 (7.48)	174.5	62.6 (3.85)	28.9 (3.15,2.31)	
F103	112.8 (8.78)	175.2	57.8 (4.95)	40.7 (3.71,2.57)	Cδ - (6.76); Cε - (6.62); Cζ - (7.70)
D104	122.0 (7.72)	179.1	58.9 (4.28)	39.8 (2.82,2.59)	
E105	119.9 (8.75)	175.0	59.4 (4.16)	28.6 (2.44,2.12)	Cγ 35.9 (2.42)
A106	122.9 (8.66)	178.8	55.4 (4.03)	18.6 (1.65)	
Q107	118.7 (9.58)	178.3	60.3 (3.90)	27.9 (2.22,2.05)	Cγ 35.2 (2.42)
K108	120.1 (8.11)	179.3	59.6 (4.21)	32.4 (2.18,2.02)	Cγ 25.2 (1.46);Cδ 29.8 (1.69);Cε 42.2 (3.00)

K109	118.8 (8.08)	180.4	59.0 (4.27)	31.8 (2.22,2.04)	Cγ 24.9 (1.44);Cδ 25.6 (1.77);Cε 42.2 (3.09)
I110	121.3 (8.30)	177.9	61.5 (4.22)	36.0 (2.44)	Cγ 29.0 (2.06,1.43);Cγm 19.6 (1.38); Cδ 10.0 (0.76)
F111	124.5 (9.22)	176.8	63.2 (3.80)	39.2 (3.51,3.21)	Cδ 131.9 (6.87);Cε - (7.04); Cζ - (6.89)
N112	117.2 (8.51)	177.5	56.3 (4.50)	38.6 (3.08,2.90)	
L113	121.5 (7.95)	180.3	58.3 (4.21)	42.3 (2.05,1.99)	Cγ 27.1 (1.83);Cδ 24.9 (1.06);24.8 (1.08)
M114	118.6 (8.22)	177.0	60.0 (4.28)	35.0 (1.82,1.68)	Cγ 32.0 (2.38,2.26);Cε 15.9 (1.73)
E115	120.2 (8.46)	177.3	60.4 (3.49)	29.6 (1.58)	Cγ 37.3 (2.07)
K116	113.5 (7.57)	176.9	57.5 (4.26)	33.1 (1.98)	Cγ 24.7 (1.59);Cδ 29.5 (1.72);Cε 42.3 (3.04)
D117	116.6 (7.62)	176.6	55.8 (5.08)	42.8 (2.92,2.84)	
S118	117.2 (8.45)	176.2	63.0 (4.52)	63.6 (4.33,4.02)	
Y119	121.8 (8.95)	175.5	60.4 (4.27)	39.2 (3.18,2.81)	Cδ - (6.72);Cε 117.2 (6.58)
R120	114.4 (7.11)	179.8	58.3 (3.52)	28.7 (1.96,1.80)	Cγ 27.0 (1.87,1.64);Cδ 42.9 (3.16,3.10)
R121	117.5 (7.63)	179.4	59.6 (3.97)	30.3 (2.07)	Cδ 43.1 (-)
F122	124.0 (8.57)	178.4	60.0 (3.32)	38.3 (2.89,2.76)	Cδ - (6.77);Cε - (7.16); Cζ 128.3 (7.26)
L123	117.7 (7.05)	176.3	56.3 (3.27)	41.4 (1.11,1.06)	Cγ 25.6 (1.31);Cδ 25.2 (0.32);19.6 (-0.09)
K124	114.3 (6.72)	175.5	54.8 (4.42)	33.0 (2.09,1.63)	Cγ 24.8 (1.46);Cδ 28.9 (1.70);Cε 42.2 (2.97)
S125	118.2 (7.83)	175.6	57.9 (4.79)	67.1 (4.52)	
R126	121.1 (9.39)	176.5	58.2 (3.92)	28.4 (1.81)	Cγ 25.5 (1.60,1.43); Cδ 42.5 (3.05,2.97)
F127	115.5 (7.47)	176.0	60.7 (4.21)	39.5 (3.42,3.17)	Cγ 132.4 (7.65);Cε - (7.18);Cγ 132.4 (7.65)
Y128	114.2 (6.68)	177.2	59.3 (4.45)	39.8 (2.39)	Cδ 133.0 (7.17);Cε 117.6 (6.91)
L129	116.8 (8.34)	180.4	57.6 (3.71)	41.7 (1.41,1.37)	Cγ 26.8 (1.76);Cδ 25.6 (0.74);22.4 (0.89)
D130	119.0 (8.61)	177.8	56.8 (4.38)	39.8 (2.63)	
L131	117.5 (7.46)	177.8	55.7 (4.18)	42.1 (1.83,1.43)	Cγ 27.0 (1.76);Cδ 26.8 (1.27);22.9 (0.94)
T132	108.3 (7.24)	173.9	61.6 (4.26)	70.1 (4.09)	Cγ 21.6 (0.73)
N133	119.8 (7.60)	173.0	51.3 (4.95)	38.8 (2.78,2.62)	
P134	- (-)	177.4	63.7 (4.43)	32.1 (2.27,1.96)	Cγ 27.2 (1.97);Cδ 50.6 (3.67,3.50)
S135	115.5 (8.32)	174.9	58.8 (4.44)	63.7 (4.42,3.88)	
S136	117.6 (8.22)	174.7	58.5 (4.47)	63.8 (3.90,3.13)	
C137	120.7 (8.27)	175.1	58.7 (4.55)	28.1 (2.95)	
G138	111.5 (8.43)	173.8	45.4 (3.96)	- (-)	
A139	124.0 (8.10)	178.0	52.6 (4.30)	19.4 (1.43)	
E140	120.0 (8.48)	176.8	57.0 (4.22)	30.0 (2.01)	Cγ 36.2 (2.28)
K141	122.1 (8.23)	176.7	56.5 (4.27)	32.9 (1.80)	Cγ 24.9 (1.44);Cδ 29.0 (1.71);Cε 42.2 (3.00)
Q142	121.1 (8.27)	173.1	55.0 (4.16)	33.1 (2.21)	Cγ 30.9 (2.64)
K143	120.7 (8.27)	176.3	56.7 (4.42)	30.8 (1.92,1.86)	Cγ 24.7 (-);Cδ 27.1 (1.71);Cε 43.5 (3.25)
G144	111.1 (8.57)	176.1	45.4 (3.97)	- (-)	
A145	124.0 (8.15)	177.9	52.7 (4.30)	19.5 (1.43)	
K146	120.9 (8.35)	179.9	56.3 (4.35)	33.1 (1.81,1.45)	Cγ 24.8 (1.46);Cδ 29.1 (1.71,1.84); Cε 42.2 (3.01)
S147	117.3 (8.39)	174.8	58.2 (3.94)	64.1 (4.50,3.90)	
S148	118.3 (8.39)	174.5	58.5 (4.47)	63.9 (3.90)	
A149	125.7 (8.30)	177.5	52.8 (4.29)	19.3 (1.38)	
D150	119.3 (8.18)	176.5	54.4 (4.61)	41.2 (2.70)	
C151	119.8 (8.28)	175.1	58.8 (4.58)	27.9 (2.98)	

T152	116.4 (8.28)	174.7	62.5 (4.33)	69.7 (4.27)	Cγ 21.7 (1.24)
S153	118.0 (8.20)	174.2	58.4 (4.47)	63.8 (3.93,3.87)	
L154	124.3 (8.18)	177.0	55.2 (4.37)	42.4 (1.61)	Cγ 27.0 (1.61);Cδ 23.5 (0.86);24.9 (0.90)
V155	122.4 (8.01)	174.4	59.9 (4.39)	32.6 (2.06)	Cγ 21.0 (0.94);20.4 (0.94)
P156	- (-)	177.0	63.3 (4.39)	32.2 (2.30,1.90)	Cγ 27.5 (2.03,1.94);Cδ 51.1 (3.86,3.69)
Q157	120.9 (8.49)	176.1	56.1 (4.29)	29.5 (2.06,2.00)	Cγ 33.9 (2.41)
C158	120.2 (8.31)	174.1	58.2 (4.45)	28.2 (2.88)	
A159	126.3 (8.32)	177.3	52.6 (4.25)	19.3 (1.30)	
H160	117.9 (8.24)	-	55.5 (4.62)	29.8 (3.15,3.06)	Cδ2 119.5 (7.13)

Footnotes to Table S1

[a]In each column, ^{15}N and ^{13}C shifts are listed first, and the corresponding ^{1}H shifts are given in parentheses. ^{1}H and ^{13}C chemical shifts are reported relative to 3-(trimethylsily)propionic-d_4 acid and ^{15}N shifts relative to external liguid NH_3.