

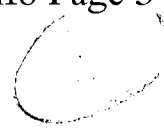
Supporting Information for World Wide Web Edition

Supplementary Table 1. Measured ^{15}N relaxation values and corresponding order parameters (S^2) and correlation times (τ_c) for fast internal motions calculated with an axially symmetric model for the G26R mutant KH3 domain of hnRNP K (mutKH3).

Res.	$T_1(\text{sec})$	$T_2(\text{sec})$	NOE	S^2	$\tau_c(\text{ps})$
N4*	0.950	0.773	-1.043	0.303	140
S5*	0.838	0.576	-0.708	0.379	149
Y6*	0.744	0.457	-0.446	0.459	168
G7*	0.728	0.434	-0.305	0.539	193
D8*	0.685	0.305	0.103	0.635	143
L9*	0.690	0.341	-0.133	0.592	198
G10*	0.666	0.312	0.061	0.682	234
G11*	0.663	0.268	0.197	0.643	125
I13*	0.670	0.127	0.638	0.730	41
I14	0.605	0.108	0.730	0.863	38
T15	0.623	0.117	0.726	0.814	31
T16	0.578	0.112	0.696	0.862	62
Q17*	0.651	0.106	0.809	0.779	1
V18	0.592	0.111	0.729	0.860	40
T19*	0.621	0.110	0.712	0.802	34
I20*	0.573	0.096	0.674	0.847	68



K22	0.586	0.116	0.675	0.838	62
D23	0.546	0.115	0.709	0.875	67
L24	0.589	0.120	0.687	0.822	50
A25	0.577	0.110	0.775	0.877	25
R26	0.603	0.114	0.704	0.836	47
S27	0.582	0.122	0.697	0.820	47
I28	0.594	0.108	0.772	0.875	18
I29	0.598	0.104	0.770	0.887	24
G30	0.582	0.102	0.723	0.906	66
K31	0.617	0.129	0.647	0.772	49
G33	0.612	0.105	0.723	0.862	47
Q34	0.650	0.100	0.658	0.852	73
R35	0.624	0.101	0.749	0.878	36
I36	0.632	0.099	0.739	0.876	42
K37	0.623	0.094	0.744	0.905	56
Q38	0.649	0.096	0.730	0.877	48
I39	0.640	0.098	0.759	0.877	33
R40	0.626	0.096	0.809	0.904	9
H41	0.652	0.097	0.761	0.876	30
E42	0.658	0.096	0.765	0.878	27
S43	0.640	0.101	0.761	0.866	27
G44	0.602	0.098	0.761	0.905	46
A45	0.574	0.102	0.760	0.912	44



S46	0.621	0.115	0.718	0.821	38
I47	0.608	0.117	0.718	0.822	36
K48	0.582	0.112	0.707	0.859	55
I49	0.607	0.121	0.755	0.813	21
D50	0.577	0.118	0.721	0.840	42
E51	0.627	0.120	0.666	0.794	48
L53*	0.623	0.138	0.523	0.759	86
E54*	0.654	0.137	0.510	0.726	74
G55*	0.650	0.160	0.487	0.744	88
S56*	0.632	0.131	0.592	0.755	61
E57*	0.615	0.084	0.589	0.771	68
R59	0.590	0.117	0.720	0.835	39
I60	0.610	0.114	0.725	0.835	35
I61	0.559	0.106	0.756	0.909	43
T62	0.578	0.108	0.767	0.883	27
I63	0.568	0.110	0.779	0.887	19
T64	0.598	0.112	0.808	0.860	3
T66	0.575	0.112	0.802	0.879	4
Q67	0.645	0.099	0.780	0.872	20
D68	0.634	0.099	0.747	0.876	39
Q69	0.614	0.101	0.771	0.884	29
I70*	0.630	0.078	0.701	0.877	66
N72	0.628	0.097	0.735	0.889	49

A73	0.627	0.097	0.762	0.896	32
Q74	0.664	0.097	0.701	0.862	54
Y75	0.643	0.093	0.757	0.898	36
L76	0.624	0.099	0.751	0.888	37
L77	0.633	0.095	0.755	0.897	40
Q78	0.662	0.094	0.752	0.881	35
N79	0.633	0.103	0.742	0.857	36
S80*	0.622	0.122	0.657	0.842	71
V81*	0.621	0.105	0.611	0.864	117
K82*	0.610	0.121	0.558	0.882	251
Q83*	0.610	0.138	0.558	0.845	136
Y84*	0.625	0.135	0.479	0.818	155
S85*	0.630	0.163	0.405	0.729	112
G86*	0.658	0.218	0.245	0.671	127
K87*	0.647	0.214	0.253	0.680	133
F88*	0.678	0.228	0.076	0.608	137
F89*	0.703	0.210	0.023	0.576	129

* S_f^2 and τ_e were calculated from T_1 and NOE data.

Supplementary Table 2. Measured ^{15}N relaxation values and corresponding order parameters (S^2) and correlation times (τ_c) for fast internal motions calculated with an axially symmetric model for the wild-type KH3 domain of hnRNP K (wtKH3).

Res.	$T_1(\text{sec})$	$T_2(\text{sec})$	NOE	S^2_r	$\tau_c(\text{ps})$
N4*	0.960	0.675	-1.091	0.289	139
S5*	0.852	0.656	-0.736	0.360	143
G7*	0.740	0.436	-0.313	0.510	167
L9*	0.704	0.352	-0.149	0.568	173
G10*	0.666	0.305	0.035	0.658	206
G11*	0.667	0.276	0.210	0.626	113
I13*	0.669	0.136	0.650	0.712	35
I14	0.586	0.114	0.769	0.864	17
T15	0.601	0.120	0.731	0.823	30
T16	0.566	0.118	0.725	0.854	43
V18	0.581	0.115	0.734	0.859	36
T19*	0.604	0.107	0.736	0.804	26
I20*	0.560	0.091	0.715	0.853	49
D23	0.552	0.121	0.706	0.851	55
L24	0.587	0.121	0.709	0.825	40
A25	0.575	0.115	0.747	0.858	35
G26	0.600	0.117	0.754	0.833	25
S27	0.581	0.124	0.746	0.822	26

I28	0.589	0.113	0.737	0.860	34
I29	0.604	0.108	0.734	0.864	38
G30	0.576	0.110	0.678	0.871	78
G32*	0.584	0.086	0.681	0.808	48
G33	0.597	0.110	0.744	0.861	37
Q34	0.621	0.103	0.708	0.863	54
R35	0.606	0.106	0.716	0.865	52
I36	0.614	0.105	0.740	0.866	39
K37	0.615	0.100	0.765	0.891	32
Q38	0.637	0.100	0.762	0.872	28
I39	0.618	0.101	0.741	0.881	45
R40	0.591	0.099	0.798	0.918	18
E42	0.636	0.101	0.769	0.870	24
S43	0.608	0.103	0.742	0.879	42
G44	0.593	0.106	0.742	0.877	44
A45	0.562	0.110	0.767	0.891	31
S46	0.594	0.123	0.768	0.819	20
I47	0.594	0.121	0.710	0.820	38
K48	0.561	0.117	0.762	0.867	27
I49	0.599	0.128	0.706	0.796	35
D50	0.566	0.118	0.727	0.854	41
E51	0.621	0.127	0.689	0.780	38
L53*	0.616	0.141	0.521	0.746	82

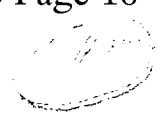
E54*	0.655	0.138	0.519	0.709	66
G55*	0.650	0.167	0.503	0.716	73
S56*	0.622	0.138	0.628	0.752	50
E57*	0.623	0.085	0.547	0.738	70
D58*	0.594	0.130	0.620	0.783	63
R59	0.588	0.129	0.707	0.798	37
I60	0.603	0.118	0.732	0.829	30
I61	0.554	0.113	0.751	0.885	37
T62	0.572	0.116	0.743	0.861	34
I63	0.559	0.123	0.750	0.844	30
T64	0.574	0.119	0.772	0.847	20
G65	0.549	0.115	0.788	0.888	14
T66	0.549	0.116	0.802	0.883	5
Q67	0.628	0.106	0.696	0.845	52
D68	0.623	0.104	0.725	0.860	44
Q69	0.602	0.105	0.796	0.880	12
I70*	0.612	0.080	0.763	0.872	29
N72	0.616	0.104	0.765	0.872	26
A73	0.597	0.102	0.783	0.898	18
Q74	0.636	0.105	0.816	0.858	2
Y75	0.629	0.102	0.742	0.868	37
L76	0.598	0.103	0.759	0.890	34
L77	0.613	0.100	0.746	0.890	41

Q78	0.636	0.101	0.758	0.871	30
S80*	0.602	0.127	0.664	0.834	65
V81*	0.602	0.109	0.608	0.847	105
K82*	0.591	0.128	0.585	0.881	190
Q83*	0.603	0.141	0.542	0.816	116
Y84*	0.613	0.142	0.507	0.802	122
S85*	0.632	0.173	0.406	0.712	102
G86*	0.657	0.236	0.279	0.659	111
K87*	0.639	0.234	0.254	0.668	127
F88*	0.675	0.241	0.122	0.603	123
F89*	0.718	0.258	-0.033	0.541	123

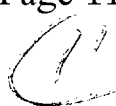
* S_f^2 and τ_e were calculated from T_1 and NOE data.

Supplementary Table 3. Measured ^{15}N relaxation values and corresponding order parameters (S^2) and correlation times (τ_c) for fast internal motions calculated with an axially symmetric model for the wild-type KH3 domain of hnRNP K bound to CT15 (KH3-CT15).

Res.	$T_1(\text{sec})$	$T_2(\text{sec})$	NOE	S^2_r	$\tau_c(\text{ps})$
N4*	0.954	0.439	-0.774	0.444	156
S5*	0.904	0.410	-0.559	0.492	155
Y6*	0.749	0.416	-0.340	0.579	263
G7*	0.745	0.384	-0.268	0.601	363
D8*	0.736	0.423	-0.149	0.637	377
L9*	0.735	0.359	-0.145	0.626	424
G10*	0.697	0.294	0.016	0.598	635
G11*	0.728	0.259	0.103	0.719	218
I13*	0.883	0.093	0.619	0.728	36
I14	0.739	0.086	0.677	0.857	59
T15	0.789	0.086	0.755	0.837	22
T16	0.727	0.089	0.717	0.850	43
Q17	0.818	0.091	0.678	0.791	35
V18	0.766	0.090	0.759	0.831	21
I20	0.726	0.083	0.743	0.889	41
K22	0.727	0.088	0.729	0.860	41
D23	0.694	0.083	0.735	0.905	60
L24	0.739	0.086	0.658	0.851	65



A25	0.744	0.077	0.750	0.913	48
G26	0.826	0.078	0.787	0.866	11
S27	0.739	0.079	0.743	0.901	44
I28	0.745	0.082	0.756	0.883	32
I29	0.772	0.078	0.758	0.889	32
G30	0.731	0.074	0.783	0.942	36
K31	0.752	0.088	0.778	0.850	18
G32	0.773	0.079	0.755	0.885	27
G33	0.778	0.068	0.837	0.959	1
Q34	0.806	0.071	0.790	0.912	20
R35	0.751	0.074	0.743	0.924	63
I36	0.797	0.072	0.758	0.911	37
K37	0.796	0.065	0.826	0.967	1
Q38	0.848	0.072	0.744	0.878	34
I39	0.792	0.074	0.747	0.901	47
R40	0.773	0.071	0.775	0.933	43
H41	0.861	0.070	0.783	0.893	17
E42	0.828	0.074	0.770	0.881	25
S43	0.790	0.077	0.693	0.876	58
G44	0.769	0.073	0.770	0.923	41
A45	0.758	0.074	0.749	0.919	51
S46	0.805	0.080	0.785	0.861	13
I47	0.823	0.092	0.732	0.790	22



K48	0.732	0.078	0.751	0.913	44
D50	0.710	0.075	0.743	0.950	90
E51	0.806	0.089	0.715	0.809	31
L53*	0.786	0.102	0.538	0.775	70
E54*	0.783	0.098	0.537	0.810	86
G55*	0.761	0.129	0.467	0.815	121
S56*	0.747	0.105	0.608	0.826	72
E57*	0.770	0.081	0.584	0.805	69
D58	0.758	0.088	0.680	0.832	48
R59	0.758	0.093	0.703	0.815	37
I60	0.779	0.084	0.677	0.843	50
I61	0.717	0.079	0.758	0.920	45
T62	0.768	0.085	0.701	0.845	43
I63	0.729	0.079	0.726	0.904	57
T64	0.774	0.083	0.747	0.857	29
G65	0.706	0.088	0.812	0.882	13
T66	0.716	0.083	0.792	0.896	19
Q67	0.844	0.076	0.733	0.859	33
D68	0.821	0.071	0.754	0.902	39
Q69	0.798	0.074	0.755	0.894	38
I70	0.822	0.068	0.829	0.929	1
N72	0.820	0.070	0.794	0.912	18
A73	0.808	0.072	0.758	0.907	36



Q74	0.843	0.073	0.734	0.876	38
Y75	0.814	0.070	0.791	0.915	23
L77	0.820	0.071	0.762	0.905	32
Q78	0.839	0.072	0.746	0.883	35
S80*	0.809	0.082	0.666	0.852	57
V81*	0.818	0.070	0.628	0.854	73
K82*	0.760	0.082	0.657	0.937	233
S85*	0.736	0.100	0.532	0.853	132
G86*	0.824	0.131	0.459	0.754	79
K87*	0.700	0.143	0.406	0.839	308
F88*	0.722	0.160	0.222	0.758	205
F89*	0.797	0.169	0.126	0.684	136

* S_f^2 and τ_e were calculated from T_1 and NOE data.

Note: Large S_f^2 values likely indicate incompatibilities between the actual structure and that used for the fitting procedure.