

Supporting information

A model of a six immunoglobulin-like domain fragment of filamin A (16-21) built using residual dipolar couplings

*Helena Tossavainen^{§,1}, Outi Koskela^{†,1}, Pengju Jiang[¶], Jari Ylännö[#], Iain D. Campbell[¶], Ilkka
Kilpeläinen[†] and Perttu Permi^{§*}*

[§]Program in Structural Biology and Biophysics, Institute of Biotechnology, Viikinkaari 1,
P.O. Box 65, FI-00014 University of Helsinki, Helsinki, Finland

[†]Laboratory of Organic Chemistry, Department of Chemistry, P.O. Box 55, FI-00014
University of Helsinki, Helsinki, Finland

[¶]Biochemistry Department, University of Oxford, Oxford OX1 3QU, U.K

[#]Department of Biological and Environmental Science and Nanoscience Center, P.O. Box 35,
FI-40014 University of Jyväskylä, Jyväskylä, Finland

¹Equal contribution

Table S1. Backbone amide chemical shift assignments of FLNa20-21.

res	$\delta(15N)$	$\delta(1H)$	res	$\delta(15N)$	$\delta(1H)$	res	$\delta(15N)$	$\delta(1H)$	res	$\delta(15N)$	$\delta(1H)$	res	$\delta(15N)$	$\delta(1H)$	res	$\delta(15N)$	$\delta(1H)$
M-1	121.37	8.38	T1805	120.00	9.02	A1837	122.38	8.09	V1868	123.18	8.45	L1900	126.34	8.36	S1933	119.25	9.06
A1772	128.29	8.26	G1806	107.97	8.43	G1838	107.14	9.07	T1869	118.79	7.85	A1901	124.93	8.65	I1934	128.94	9.55
E1774	122.73	8.44	E1807	120.49	8.47	L1839	128.32	9.05	A1870	125.25	8.44	I1902	121.34	8.59	L1935	131.38	9.31
R1775	124.28	8.23	V1808	126.52	9.11	H1840	128.63	9.31	Y1871	120.26	8.70	E1903	129.76	9.25	V1936	127.19	9.38
L1777	124.09	8.30	R1809	127.22	9.01	E1841	119.54	7.88	G1872	109.75	8.94	G1904	112.39	8.29	K1937	125.01	8.61
V1778	122.00	7.95	M1810	123.77	8.22	M1842	124.98	9.35	G1874	105.49	9.22	S1906	109.15	6.99	Y1938	122.59	8.83
G1779	113.93	8.39	S1812	112.43	8.82	D1843	128.25	8.96	L1875	117.44	7.13	K1907	124.71	8.44	N1939	130.08	8.88
V1780	120.50	7.97	G1813	112.95	8.32	I1844	124.50	9.39	H1877	126.06	8.98	A1908	131.18	8.33	E1940	108.40	8.81
N1781	122.89	8.47	K1814	122.31	7.07	R1845	125.09	8.84	G1878	111.93	7.46	E1909	124.99	8.59	Q1941	120.14	7.50
G1782	110.47	8.24	V1815	118.89	8.01	Y1846	121.98	8.92	V1879	120.26	8.77	I1910	126.45	8.54	H1942	126.55	8.80
L1783	122.93	7.88	A1816	128.34	9.05	D1847	131.56	8.98	V1880	122.26	7.77	S1911	124.20	9.22	V1943	122.04	8.45
D1784	123.04	8.31	Q1817	120.38	8.67	N1848	108.80	8.56	N1881	115.41	8.77	C1912	125.78	8.72	G1945	113.86	7.52
V1785	121.43	8.16	T1819	117.65	9.04	M1849	122.09	7.76	K1882	121.68	8.03	T1913	125.03	8.93	S1946	113.53	7.43
T1786	115.59	8.25	I1820	129.65	8.85	H1850	124.34	8.54	A1884	132.61	8.82	D1914	128.20	8.79	F1948	127.70	9.36
S1787	118.83	8.12	T1821	125.37	9.16	I1851	121.06	8.30	T1885	113.68	8.38	N1915	125.96	8.66	T1949	120.54	9.06
L1788	126.06	8.25	D1822	126.78	8.87	G1853	114.32	8.45	F1886	119.34	9.02	D1917	119.03	7.85	A1950	130.86	8.95
R1789	127.37	8.15	N1823	126.39	8.31	S1854	113.06	7.78	T1887	119.62	9.40	G1918	110.70	8.62	R1951	122.05	7.72
F1791	122.26	8.31	K1824	115.67	9.17	L1856	122.65	9.11	V1888	124.52	8.77	T1919	111.37	8.10	V1952	125.69	9.07
D1792	127.63	6.91	D1825	119.90	7.85	Q1857	119.40	9.55	N1889	128.80	9.25	C1920	118.71	9.04	T1953	121.94	8.75
L1793	123.42	8.32	G1826	109.83	8.89	F1858	118.56	8.56	T1890	116.52	8.54	S1921	122.19	9.06	G1954	107.36	8.54
V1794	129.08	8.44	T1827	112.52	7.95	Y1859	127.55	9.85	K1891	124.76	8.14	V1922	130.49	8.94	D1955	121.40	8.29
I1795	127.72	9.07	V1828	115.69	8.78	V1860	132.30	8.03	D1892	119.96	8.58	S1923	121.56	8.68	D1956	124.30	8.50
F1797	128.86	8.20	T1829	121.39	9.07	D1861	130.50	8.38	A1893	123.01	7.71	Y1924	122.04	9.00	S1957	117.21	8.34
T1798	123.26	7.38	V1830	130.02	9.48	Y1862	120.27	9.62	G1894	108.64	8.17	L1925	123.52	7.47	M1958	122.47	7.90
I1799	128.72	8.35	R1831	125.83	8.83	V1863	122.05	8.29	E1895	123.23	8.58	V1927	116.14	8.36	R1959	123.14	8.59
K1800	128.63	7.72	Y1832	122.90	8.84	N1864	120.36	8.69	G1896	111.24	8.27	L1928	120.02	6.85	S1967	117.72	8.06
G1802	110.58	8.05	A1833	135.53	7.88	C1865	117.09	7.87	G1897	106.48	7.52	G1930	107.74	8.86	A1968	126.67	8.28
E1803	119.92	8.18	S1835	112.64	8.96	G1866	110.92	8.44	L1898	127.16	8.41	D1931	122.17	8.21	D1970	122.41	7.75
I1804	128.26	8.82	E1836	123.22	7.57	H1867	115.49	7.12	S1899	123.22	9.22	Y1932	125.41	9.56	I1971	126.66	9.01

res	$\delta(15N)$	$\delta(1H)$	res	$\delta(15N)$	$\delta(1H)$	res	$\delta(15N)$	$\delta(1H)$	res	$\delta(15N)$	$\delta(1H)$	res	$\delta(15N)$	$\delta(1H)$	res	$\delta(15N)$	$\delta(1H)$
I1973	117.84	8.50	G2005	108.78	8.15	S2040	119.26	8.67	L2080	127.47	8.59	D2122	109.81	8.62	D2173	117.60	7.51
N1974	123.89	8.62	H2006	121.48	7.75	G2045	116.02	8.29	S2081	122.05	9.28	Q2123	119.53	7.59	M2174	122.53	7.63
I1975	119.52	7.57	V2007	123.17	8.73	A2047	128.64	9.14	L2082	128.24	8.90	H2124	123.65	8.74	T2175	114.49	8.78
S1976	123.90	8.64	G2008	114.41	9.04	S2048	111.92	8.35	S2083	118.60	8.88	V2125	119.49	8.22	A2176	125.69	8.89
E1977	123.96	7.50	I2009	115.67	8.65	R2049	120.73	7.48	I2084	124.79	8.89	G2127	115.73	8.14	Q2177	122.22	8.72
T1978	115.76	8.19	S2010	118.04	8.49	V2050	124.45	7.40	E2085	130.54	9.31	S2128	114.29	7.66	V2178	125.04	9.09
D1979	123.96	8.44	F2011	125.93	8.32	R2051	128.27	8.06	G2086	111.13	8.46	K2133	129.22	7.64	T2179	126.15	9.27
L1980	124.29	8.31	T2016	109.35	8.00	V2052	119.98	8.31	S2088	110.17	6.95	V2134	129.55	9.13	S2180	126.99	9.30
S1981	115.78	8.35	G2017	107.07	9.02	S2053	117.21	8.58	K2089	123.95	8.55	T2135	121.40	8.20	S2182	111.47	8.14
L1982	120.91	7.37	E2018	126.18	9.23	G2054	111.10	8.43	V2090	123.02	8.48	G2136	109.79	8.41	G2183	112.39	8.18
L1983	120.07	7.32	H2019	129.73	9.74	Q2055	123.95	9.05	D2091	125.80	8.34	E2137	120.68	8.36	K2184	122.43	7.35
T1984	114.96	8.88	L2020	123.42	8.32	G2056	106.90	8.82	I2092	124.45	8.30	G2138	110.98	8.53	T2185	121.21	8.56
A1985	127.07	8.84	V2021	127.22	9.28	L2057	117.62	6.93	N2093	127.17	8.91	R2139	121.33	8.10	H2186	124.42	8.91
T1986	116.48	8.86	H2022	130.62	9.40	H2058	113.59	7.90	T2094	112.89	8.24	V2140	123.45	8.83	E2187	124.09	8.84
V1987	121.74	9.12	V2023	128.05	9.47	E2059	121.07	8.45	E2095	123.64	8.68	K2141	126.14	8.40	A2188	127.65	8.12
V1988	128.97	9.19	K2024	125.69	8.68	G2060	106.92	7.97	D2096	127.70	8.66	S2143	121.07	8.61	E2189	122.76	8.52
S1991	112.01	8.84	K2025	121.98	8.78	H2061	122.06	9.84	L2097	126.42	8.60	A2150	126.69	8.05	I2190	123.93	8.31
G1992	111.08	8.30	N2026	129.18	9.50	T2062	116.05	8.11	E2098	122.29	8.88	S2152	117.52	8.39	V2191	127.26	9.18
R1993	122.25	7.35	G2027	103.81	8.61	E2064	122.65	7.86	D2099	117.49	7.57	V2153	123.10	8.07	E2192	128.91	8.91
E1994	128.02	8.04	Q2028	120.98	7.59	A2066	132.21	8.88	G2100	108.20	8.06	A2154	129.47	8.29	G2193	116.32	8.17
E1995	124.85	8.73	H2029	125.28	8.70	E2067	119.25	8.70	T2101	113.58	7.86	N2155	118.46	8.25	E2194	120.45	8.25
C1997	118.27	8.10	V2030	118.31	8.25	I2069	120.75	9.32	C2102	120.06	8.56	L2162	121.02	8.21	N2195	120.46	9.04
L1998	123.80	8.17	A2031	124.81	8.62	D2071	127.73	9.12	R2103	129.77	9.15	S2163	121.64	8.39	H2196	112.68	8.53
L1999	124.95	8.28	S2032	112.75	8.14	T2072	119.30	9.31	T2105	118.61	8.54	I2166	127.61	8.43	T2197	110.49	6.66
K2000	121.84	8.90	S2033	116.13	7.69	R2073	124.48	8.43	C2107	121.99	7.98	E2168	115.79	8.12	Y2198	122.95	9.03
R2001	122.51	8.45	I2035	125.66	9.26	D2074	117.76	8.58	G2112	106.38	8.68	I2169	116.78	7.83	C2199	123.51	9.16
L2002	127.61	8.83	V2037	125.31	9.18	A2075	123.11	7.41	N2113	121.37	8.43	S2170	115.36	7.41	R2201	127.34	8.96
R2003	122.74	8.67	V2038	129.54	8.90	G2076	107.47	7.93	I2118	126.08	9.75	I2171	127.73	8.72	F2202	121.57	8.45
N2004	115.73	7.81	I2039	130.77	7.97	G2079	107.78	8.10	A2121	131.27	8.64	Q2172	120.98	8.23	V2203	122.96	8.15

res	$\delta(15\text{N})$	$\delta(1\text{H})$	res	$\delta(15\text{N})$	$\delta(1\text{H})$	res	$\delta(15\text{N})$	$\delta(1\text{H})$	res	$\delta(15\text{N})$	$\delta(1\text{H})$
A2205	126.24	9.96	R2242	126.44	8.05	A2274	129.10	9.00	S2308	123.36	9.65
E2206	119.04	7.77	A2243	127.35	8.90	V2275	120.79	8.74	V2309	125.68	9.38
M2207	118.55	8.44	G2244	106.22	8.59	E2276	131.24	9.30	K2310	125.27	9.07
T2211	118.04	8.77	G2245	115.13	9.11	G2277	112.24	8.73	F2311	124.41	9.26
V2212	130.65	9.64	G2247	104.25	9.15	S2279	110.43	7.19	N2312	129.85	9.33
S2213	124.95	9.10	L2248	117.74	7.54	K2280	122.11	8.59	E2313	107.49	8.89
V2214	130.58	9.77	E2249	120.57	7.98	A2281	132.27	8.68	E2314	121.51	7.50
K2215	125.81	8.76	R2250	117.01	8.32	E2282	121.35	8.21	H2315	124.58	8.79
Y2216	121.81	8.96	A2251	122.61	8.01	I2283	128.07	9.00	I2316	119.39	8.15
K2217	127.56	8.61	E2252	122.38	9.19	S2284	124.74	9.49	D2318	116.58	7.97
G2218	103.35	8.35	A2253	129.01	8.44	F2285	119.96	8.18	S2319	113.55	7.42
Q2219	120.98	7.60	G2254	109.86	8.69	D2287	127.52	8.76	F2321	122.83	9.37
H2220	125.28	8.70	V2255	124.59	7.74	R2288	124.54	8.10	V2322	126.52	8.75
V2221	120.43	8.43	A2257	132.98	8.97	G2291	114.36	8.24	V2323	133.59	9.44
G2223	114.12	8.25	E2258	120.24	8.38	S2292	117.59	7.60	V2325	128.03	9.17
S2224	114.57	7.57	F2259	116.53	8.86	C2293	119.57	8.32	A2326	132.95	8.53
F2226	122.03	9.09	S2260	117.11	8.71	G2294	107.11	8.60	S2327	117.68	8.63
Q2227	122.14	8.83	I2261	121.14	8.43	V2295	124.48	8.34	S2329	124.17	8.10
F2228	124.36	8.97	W2262	129.66	9.66	A2296	128.62	8.25			
T2229	111.46	6.65	T2263	115.19	8.47	Y2297	119.11	8.86			
L2233	125.77	8.28	R2264	127.65	8.10	V2298	119.70	8.26			
G2234	110.38	8.24	A2266	120.60	7.66	V2299	122.66	8.77			
E2235	122.89	8.41	G2267	106.72	7.27	Q2300	119.49	8.17			
G2236	112.66	8.44	A2268	123.85	8.54	E2301	117.00	6.95			
G2237	108.63	7.90	G2269	108.96	8.29	G2303	108.00	8.70			
A2238	123.11	8.92	G2270	108.02	7.72	D2304	122.18	8.30			
H2239	113.09	8.51	L2271	121.64	8.29	Y2305	124.47	8.86			
K2240	119.28	7.42	A2272	126.17	8.67	E2306	122.69	9.33			
V2241	124.61	7.50	I2273	126.03	8.83	V2307	132.83	9.79			

Table S2. Backbone ^1HN - ^{15}N residual dipolar coupling data of FLNa16-21. 1 Residues marked with a # were not included in the fit.

incl ¹	res	D	description	incl	res	D	description	incl	res	D	description
#	1774	-2.44	disordered		1809	-5.54			1843	-0.50	
#	1775	2.60	disordered		1810	-3.26			1844	-12.80	
#	1778	1.80	disordered		1812	-14.76			1845	-5.36	
#	1779	-1.30	disordered		1813	-6.00			1846	-17.52	
#	1780	2.10	disordered		1814	14.12			1847	-7.12	
#	1782	-1.60	disordered		1815	-5.34			1848	0.98	
#	1783	-2.76	disordered		1816	-8.42			1849	-13.14	
#	1784	-1.30	disordered		1817	2.28			1850	-12.64	
#	1785	-2.58	disordered		1819	6.16			1851	12.32	
#	1786	-3.26	disordered		1820	-6.64			1853	-6.48	
#	1787	-1.94	disordered		1821	-7.96			1854	14.28	
	1788	-6.80			1822	-11.20			1856	-11.18	
	1789	-15.72			1823	-17.02			1857	-5.68	
	1791	-9.74			1824	-11.18			1858	-3.24	
	1792	-9.08		#	1825	7.12	disordered loop residue		1859	-8.94	
	1793	1.94			1826	-3.90			1860	-12.34	
	1794	-0.96			1827	-17.34			1861	-7.46	
	1795	-13.94			1828	-16.84			1862	-13.44	
#	1797	-11.66	disordered loop residue		1829	-9.08			1863	-8.12	
	1798	-8.60			1830	-4.88			1864	-4.84	
	1799	0.96			1831	-2.12			1865	10.22	
	1800	-8.10			1832	-1.60		#	1866	-22.70	disordered linker between domains
	1802	-5.20			1833	3.56		#	1867	-1.12	disordered linker between domains
	1803	-3.42		#	1836	17.18	disordered loop residue		1868	-10.06	
	1804	-13.12			1837	13.30			1869	-8.26	
	1805	-6.32			1838	-8.58			1870	-9.56	
	1806	-6.16			1840	-8.60			1871	-6.66	

1807 -5.50				1841 -7.46				1872 -7.12			
1808 -5.98				1842 -4.24				1874 0.00			
incl	res	D	description	incl	res	D	description	incl	res	D	description
#	1875	-12.66	fit trials failed, 3-10 helix	1907	6.30			#	1939	-8.26	disordered loop residue
#	1877	20.74	fit trials failed, 3-10 helix	1908	4.38			1940	1.94		
1878	0.80			#	1909	17.50	backbone twist, fit trials failed	1941	-9.38		
1879	-0.96			1910	-11.52			1942	-15.88		
1880	1.30			1911	-8.26			1943	11.34		
1881	-6.14			1912	-8.92			1945	-10.20		
1882	-11.68			1913	-5.36			1948	-7.14		
1884	-15.72			1914	-6.00			1949	-3.42		
1885	-5.98			1915	-10.52			1950	-14.76		
1886	-7.12			1917	15.54			1951	-10.20		
1887	-6.96			1918	3.40			#	1952	-32.58	weak signal in the spectrum, possibly inaccurate RDC
1888	-8.76			1919	-9.40			1953	-6.16		
1889	-5.84			1920	-9.58			1954	-6.96		
1890	-7.14			1921	-6.02			#	1955	-9.10	linker
1891	3.72			1922	-11.36			#	1956	0.32	linker
1892	5.18			1923	-9.26			#	1957	8.42	linker
1893	6.50			1924	-8.90			#	1958	4.22	linker
1894	-8.60			1925	-8.28			#	1959	-22.84	linker
1895	8.60			1927	-6.32			1967	-1.54		
#	1896	-2.62	disordered loop residue	1928	19.94			#	1968	-2.12	somewhat disordered, fit trials failed
1897	-10.70			1930	-14.26			1970	-7.94		
1898	-8.76			1931	-11.20			1971	-14.28		
1899	-6.32			1932	-14.92			1973	12.64		
1900	-9.56			1933	-4.88			1974	-2.92		
1901	-4.88			1934	-9.72			1975	9.40		
1902	-6.48			1935	0.00			1976	9.82		
1903	-3.10			1936	-7.62			#	1977	-9.08	disordered loop residue

1904 -13.12				1937 -2.10				# 1978 2.92 disordered loop residue			
# 1906 7.62 disordered loop residue				1938 -9.70				1979 6.32			
incl	res	D	description	incl	res	D	description	incl	res	D	description
#	1981	6.80	disordered loop residue	#	2009	-13.46	somewhat disordered, fit trials failed		2049	-0.64	
	1982	-6.16			2010	-14.58			2050	-13.64	
	1983	8.24		#	2011	-19.60	fit trials failed, at the domain interface		2051	-7.14	
	1984	17.52			2016	1.30			2052	-8.76	
	1985	11.66			2017	1.30			2053	-12.64	
#	1986	-2.74	suspicious peak in aligned-hsqc, possibly inaccurate RDC	#	2018	0.96	disordered loop residue		2054	-19.94	
	1987	10.20			2019	-8.42			2055	-7.78	
	1988	-6.98			2021	-7.62			2056	-6.64	
	1991	11.98			2022	10.06			2057	-13.46	
	1992	-6.16			2023	13.62		#	2058	6.64	weak signal, possibly inaccurate RDC
	1993	-10.38			2024	12.48			2059	-1.78	
	1994	2.10			2025	16.06			2060	-5.82	
	1995	-1.94		#	2027	11.18	disordered loop residue		2061	-1.30	
	1997	0.48			2030	5.02		#	2062	-12.50	at the domain interface
	1998	-8.58			2032	8.76			2064	-0.96	
	1999	-12.50			2033	-6.32			2066	-18.64	
#	2000	0.48	disordered loop residue		2035	9.24			2067	-10.72	
	2001	6.48			2037	-1.78			2069	-13.96	
	2002	10.36			2038	-0.34			2071	-8.90	
#	2004	15.38	disordered loop residue		2039	2.10		#	2072	11.16	fit trials failed, at the domain interface
	2005	6.48		#	2040	-15.24	at the domain interface		2074	20.60	
#	2006	0.02	disordered loop residue		2045	-12.16		#	2075	6.98	fit trials failed, at the domain interface
	2007	10.70			2047	-5.68			2076	-4.22	

#	2008	-0.16	somewhat disordered, fit trials failed	2048	14.10	2079	3.24
incl	res	D	description	incl	res	D	description
	2080	-4.86			2122	9.74	
	2081	-11.04			2123	-4.04	
	2082	-22.06	weak signal, possibly inaccurate RDC	#	2124	-4.54	disordered loop residue
#	2083	-29.66			2125	8.44	
	2084	-21.02		#	2127	4.54	disordered loop residue
	2085	-10.84		#	2128	8.28	disordered loop residue
#	2086	27.08	fit trials failed, at the domain interface		2133	-18.32	
	2088	7.14			2134	-12.98	
	2091	22.54			2135	-6.48	
	2092	-13.62			2136	-11.36	
	2093	-10.36			2137	-6.48	
	2094	-18.48		#	2138	-8.12	linker
	2095	-11.50		#	2139	13.14	linker
	2096	-15.58		#	2141	-0.64	linker
	2097	1.78		#	2143	10.14	linker
	2098	24.64			2150	-2.80	
	2099	18.82			2152	9.24	
	2100	8.60			2153	-1.64	
	2101	-8.28		#	2154	-4.68	disordered loop residue
	2102	-5.02			2155	-1.78	
	2103	-15.08			2162	5.02	
	2105	-15.86		#	2163	9.72	no structure data
#	2107	-0.64	fit trials failed, at the domain interface	#	2166	7.74	no structure data
	2112	-16.68		#	2168	-13.60	no structure data
	2113	-9.40		#	2169	-37.14	no structure data
	2118	-11.50		#	2170	-32.90	no structure data
				#	2172	14.26	fit trials failed
				#	2173	-0.32	fit trials failed
				#	2174	6.16	fit trials failed
				#	2175	32.92	fit trials failed
					2176	37.94	
					2177	44.10	
					2178	48.80	
					2179	39.72	
				#	2180	14.76	disordered loop residue
				#	2182	-7.60	disordered loop residue
					2183	-1.44	
					2184	-29.50	
					2185	1.14	
					2186	36.46	
					2187	30.78	
				#	2188	-23.98	fit trials failed, strand twist
					2189	-18.66	
					2190	19.94	
				#	2191	41.00	no structure data
				#	2192	39.38	no structure data
				#	2193	-9.90	no structure data
				#	2194	-19.78	no structure data
				#	2195	12.48	no structure data
				#	2196	-13.78	no structure data
				#	2197	-8.08	no structure data
					2198	33.88	

2121	-2.94	2171	-12.00	# 2199	39.22	fit trials failed
-------------	-------	-------------	--------	---------------	-------	-------------------

incl	res	D	description	incl	res	D	description	incl	res	D	description
	2201	-8.40		# 2235	-14.92	fit trials failed, at the domain interface		2260	-56.58		
#	2202	-16.36	fit trials failed, no well defined secondary structure	# 2236	-10.70	fit trials failed, at the domain interface		2261	-25.46		
#	2203	-2.58	fit trials failed, no well defined secondary structure	# 2237	-3.92	fit trials failed, at the domain interface		2262	-32.58		
	2205	-37.18		2238	18.98			2263	-17.68		
	2206	-2.28		2239	7.94		#	2264	-2.42	fit trials failed, flexible loop at the domain interface	
	2207	13.80		2240	-32.74		#	2267	20.60	fit trials failed, flexible loop at the domain interface	
	2211	26.44		2241	35.02		#	2269	14.12	fit trials failed, elevated dynamics	
	2212	37.30		2242	-36.64		#	2270	11.16	fit trials failed, Rex	
	2213	35.50		2243	-32.92		#	2271	-16.06	fit trials failed, Rex	
	2214	32.44		2244	-42.64		#	2272	-50.84	fit trials failed, Rex	
	2215	25.44		2245	-40.04			2273	-38.90		
	2216	13.28		2247	-8.60			2274	-21.56		
#	2217	9.72	disordered loop residue	# 2248	10.20	fit trials failed, 3-10 helix	#	2275	-2.12	fit trials failed	
	2218	-23.34		# 2249	-2.44	fit trials failed, 3-10 helix		2277	-21.90		
	2221	12.50		2250	-7.62			2279	18.48		
	2223	-25.44		# 2251	5.68	fit trials failed		2280	24.32		
	2224	-0.14		2252	-24.48		#	2281	28.06	weak peaks, possibly inaccurate RDC	
	2226	47.64		2253	-39.88			2282	-30.50		
	2227	27.56		2254	16.38		#	2283	-12.32	fit trials failed	
	2228	-6.32		2255	-6.16			2284	-50.42		
#	2229	-4.04	fit trials failed, at the domain interface	# 2257	3.90	fit trials failed	#	2285	-6.64	fit trials failed	

#	2233	-47.02	fit trials failed, at the domain interface	2258	-25.78	2287	-21.72
#	2234	-19.96	fit trials failed, at the domain interface	2259	-47.66	2288	-6.32
incl	res	D	description	incl	res	D	description
#	2291	-41.00	weak peaks, possibly inaccurate RDC	#	2318	17.34	fit trials failed
	2292	19.62			2319	1.46	
	2293	-34.70			2321	-42.14	
#	2294	-22.86	weak peaks, possibly inaccurate RDC		2322	-8.26	
#	2295	-59.34	weak peaks, possibly inaccurate RDC	#	2323	-5.02	fit trials failed
	2296	-45.06			2325	25.76	
	2297	-37.10			2326	27.08	
	2298	-32.56			2327	-34.54	
	2299	-13.30		#	2329	7.94	disordered
	2300	5.82					
#	2301	-3.10	disordered loop residue				
	2303	34.68					
	2304	30.80					
#	2305	19.64	fit trials failed, loop residue at the domain interface				
	2306	-9.08					
	2307	-42.62					
	2308	-13.78					
	2309	-29.98					
	2310	-17.36					
#	2311	-13.30	broad peaks, possibly inaccurate RDC				
	2312	-1.14					
	2313	17.02					

2314	13.78	
2315	24.98	
2316	11.98	

Table S3. R₁, R₂, and heteronuclear NOE data of FLNa16-21.

res	R1	R1err	R2	R2err	NOE	NOEerr	res	R1	R1err	R2	R2err	NOE	NOEerr	res	R1	R1err	R2	R2err	NOE	NOEerr
1772	1.08	0.02	3.22	0.40	-0.30	0.03	1801							1830	0.54	0.02	36.72	2.00	0.67	0.04
1773							1802	1.06	0.05	16.88	0.41	0.52	0.04	1831	0.53	0.01	33.46	0.47	0.94	0.03
1774	1.20	0.02	3.72	0.35	0.04	0.16	1803							1832	0.52	0.02	32.04	1.63	0.85	0.03
1775	1.43	0.05	3.86	0.35	0.15	0.07	1804	0.61	0.01	32.77	0.65	0.68	0.03	1833	0.49	0.01	29.18	1.84	0.87	0.03
1776							1805	0.55	0.01	32.65	1.55	0.77	0.04	1834						
1777							1806	0.53	0.02	33.42	1.51	0.70	0.03	1835						
1778	1.35	0.05	4.99	0.25	0.16	0.06	1807	0.61	0.04	34.15	2.22	0.84	0.03	1836			32.48	3.47		
1779	1.33	0.04	5.77	0.20	0.20	0.06	1808	0.53	0.02	36.68	1.98	0.94	0.04	1837	0.48	0.01			0.75	0.03
1780							1809	0.50	0.01	25.13	2.19	0.72	0.04	1838	0.51	0.03	33.81	1.60	0.80	0.04
1781							1810	0.51	0.01			0.64	0.04	1839						
1782							1811							1840	0.55	0.01	31.40	1.85	0.89	0.05
1783	1.26	0.01	6.44	0.29	0.31	0.04	1812	0.54	0.01	34.06	1.39	0.90	0.06	1841	0.48	0.01	31.65	3.29	0.85	0.04
1784	1.19	0.02	10.07	0.39	0.32	0.04	1813	0.53	0.01	31.67	3.20	0.69	0.04	1842	0.52	0.02	28.74	1.25	0.80	0.04
1785	0.90	0.04	16.56	0.75	0.29	0.05	1814	0.45	0.00	34.49	2.23	0.84	0.06	1843	0.47	0.01	34.00	1.45	0.88	0.04
1786	0.99	0.05	22.84	0.42	0.49	0.06	1815	0.48	0.01	21.62	3.86	0.83	0.03	1844	0.54	0.02	23.84	2.20	0.70	0.07
1787	0.88	0.01	23.12	0.46	0.58	0.05	1816							1845	0.47	0.01	30.44	1.26	0.72	0.03
1788	0.55	0.03	18.55	1.82	0.69	0.04	1817							1846			33.85	1.42		
1789	0.51	0.02	14.90	1.36	0.75	0.03	1818							1847	0.59	0.02	31.92	1.69	0.85	0.04
1790							1819	0.48	0.01	34.12	1.37	0.88	0.04	1848	0.52	0.01	37.26	1.32	0.42	0.05
1791							1820	0.54	0.01	30.90	1.04	0.67	0.03	1849						
1792	0.51	0.01	32.23	0.51	0.74	0.04	1821							1850	0.59	0.02	24.73	2.28	0.70	0.03
1793							1822	0.49	0.01	29.89	0.54	0.75	0.03	1851	0.50	0.02			0.60	0.03
1794							1823	0.54	0.03	26.69	1.20	0.71	0.04	1852						
1795	0.49	0.01	32.92	1.33	0.60	0.04	1824	0.58	0.02	33.38	1.15	0.92	0.06	1853	0.51	0.01	28.10	2.50	0.65	0.03
1796							1825	0.42	0.01	20.50	1.89	0.87	0.06	1854	0.47	0.01	32.06	2.12	0.74	0.04
1797	0.53	0.01	30.70	0.98	0.45	0.04	1826	0.53	0.05	39.51	5.42	0.70	0.06	1855						
1798	0.52	0.01	30.04	1.32	0.55	0.04	1827	0.51	0.01	25.36	1.96	0.82	0.07	1856	0.55	0.01	30.51	1.60	0.77	0.03
1799	0.57	0.01	24.25	1.14	0.57	0.03	1828							1857	0.48	0.01	32.26	3.07	0.63	0.07
1800	0.67	0.01	9.69	2.01	0.70	0.06	1829	0.48	0.01	29.82	0.54	0.81	0.04	1858						

res	R1	R1err	R2	R2err	NOE	NOEerr	res	R1	R1err	R2	R2err	NOE	NOEerr	res	R1	R1err	R2	R2err	NOE	NOEerr
1859	0.48	0.02	28.57	2.83	0.84	0.05	1888	0.50	0.02			0.95	0.03	1917	0.49	0.02	33.72	1.55	0.66	0.24
1860	0.51	0.00	24.69	3.15	0.59	0.06	1889	0.54	0.02	32.81	0.49	0.92	0.04	1918						
1861	0.49	0.01	28.43	3.53	0.71	0.04	1890	0.49	0.02	29.55	2.95	0.63	0.08	1919	0.56	0.03	25.88	1.10	0.73	0.09
1862	0.53	0.03	29.84	2.15	0.71	0.06	1891	0.61	0.02	20.63	2.61	0.66	0.06	1920	0.51	0.01	35.88	1.58	0.73	0.05
1863							1892							1921	0.53	0.01	31.98	1.64	0.86	0.04
1864							1893	0.66	0.02	24.59	1.28	0.63	0.04	1922	0.51	0.01	32.36	1.48	0.87	0.03
1865	0.60	0.04	21.61	1.77	0.57	0.09	1894	1.01	0.05	16.87	0.28	0.59	0.03	1923	0.50	0.01	33.17	1.77	0.78	0.03
1866							1895	0.82	0.02	22.16	0.48			1924	0.56	0.01	36.05	1.21	0.88	0.04
1867	0.55	0.02	17.47	0.93	0.52	0.07	1896	0.58	0.01	17.78	0.65			1925	0.51	0.01	32.64	1.62	0.76	0.03
1868							1897	0.49	0.01	20.46	0.62	0.39	0.04	1926						
1869	0.56	0.01	34.42	2.41	0.90	0.05	1898	0.49	0.01	25.55	0.91	0.75	0.03	1927	0.53	0.01	26.85	1.76	0.74	0.05
1870	0.52	0.01	26.90	1.89	0.71	0.04	1899	0.49	0.01	29.77	3.37	0.74	0.03	1928	0.55	0.02	38.64	7.47	0.74	0.08
1871							1900					0.72	0.02	1929						
1872	0.52	0.02	30.61	1.34	0.87	0.03	1901			33.70	1.34	0.78	0.02	1930	0.50	0.01	34.42	1.55	0.89	0.03
1873							1902	0.50	0.01	33.16	1.08	0.81	0.03	1931	0.45	0.01			0.74	0.02
1874	0.48	0.01	35.55	1.79	0.87	0.04	1903	0.47	0.02	32.41	0.80	0.75	0.03	1932	0.50	0.03	29.04	1.07	0.71	0.04
1875	0.60	0.01			0.76	0.05	1904	0.48	0.01	27.44	1.47	0.63	0.03	1933	0.44	0.01	32.94	1.78	0.82	0.03
1876							1905							1934	0.48	0.02	29.33	1.85	0.75	0.04
1877	0.53	0.02			0.70	0.07	1906	0.54	0.01	31.79	0.66	0.66	0.03	1935			32.95	1.50		
1878	0.49	0.02	33.61	1.46	0.74	0.05	1907	0.60	0.05			0.44	0.04	1936	0.51	0.01	26.12	2.02	0.86	0.05
1879	0.52	0.03	35.55	0.80	0.77	0.04	1908	0.77	0.02	25.28	0.21	0.64	0.03	1937						
1880							1909			30.87	1.36			1938	0.50	0.01	32.75	0.72	0.73	0.03
1881							1910	0.51	0.01	31.69	0.95	0.81	0.04	1939	0.53	0.01	32.94	1.26	0.92	0.04
1882	0.53	0.01			0.84	0.03	1911	0.55	0.02	30.38	0.77	0.62	0.04	1940	0.49	0.02	43.12	2.05	0.71	0.05
1883							1912	0.53	0.02	26.92	0.74	0.78	0.04	1941	0.53	0.01	29.52	1.50	0.73	0.03
1884	0.53	0.01	34.77	0.53	0.81	0.03	1913			28.08	1.97			1942	0.52	0.02	30.74	0.80	0.67	0.04
1885	0.53	0.02			0.75	0.03	1914	0.50	0.03	30.38	0.34	0.61	0.07	1943	0.47	0.02			0.71	0.03
1886	0.50	0.02	34.71	1.66	0.69	0.04	1915							1944						
1887	0.50	0.02	33.75	0.84	0.87	0.04	1916							1945						

res	R1	R1err	R2	R2err	NOE	NOEerr	res	R1	R1err	R2	R2err	NOE	NOEerr	res	R1	R1err	R2	R2err	NOE	NOEerr
1946							1975			22.29	1.59			2004	0.65	0.03	26.69	2.69	0.43	0.15
1947							1976							2005					0.48	0.06
1948	0.54	0.01	30.15	1.27	0.91	0.04	1977							2006			35.50	5.43		
1949			29.40	0.88			1978	0.65	0.02			0.45	0.10	2007	0.66	0.02	46.04	1.53	0.50	0.05
1950	0.51	0.01	29.53	1.45	0.97	0.04	1979							2008	0.60	0.01	38.85	4.15	0.62	0.05
1951	0.46	0.00	29.38	1.99	0.92	0.03	1980							2009	0.53	0.03			0.66	0.07
1952	0.53	0.03			0.82	0.06	1981	0.73	0.04	39.25	4.94	0.66	0.06	2010	0.55	0.02			0.61	0.08
1953			38.21	0.91			1982	0.70	0.03	36.31	2.24	0.44	0.09	2011						
1954	0.54	0.01	31.74	1.36	0.68	0.03	1983	0.62	0.02	33.70	2.95	0.64	0.05	2012						
1955	0.78	0.01			0.53	0.03	1984	0.48	0.01	37.02	3.66	0.60	0.05	2013						
1956	0.92	0.03	22.62	1.05	0.51	0.04	1985	0.49	0.01			0.70	0.04	2014						
1957			27.34	0.83			1986							2015						
1958							1987	0.56	0.01	36.14	3.53	0.74	0.06	2016	0.54	0.01	44.74	6.71	0.50	0.06
1959							1988	0.56	0.03	35.91	1.39	0.80	0.05	2017	0.56	0.01	43.52	7.12	0.73	0.06
1960							1989							2018	0.56	0.03	36.43	3.64	0.63	0.07
1961							1990							2019	0.58	0.03	39.05	7.76	0.65	0.08
1962							1991	0.55	0.02	39.40	1.36	0.72	0.06	2020						
1963							1992							2021	0.54	0.01	27.26	1.19	0.82	0.06
1964							1993	0.61	0.02			0.58	0.04	2022	0.54	0.03	41.12	7.86	0.78	0.06
1965							1994	0.60	0.01	32.59	0.74	0.52	0.03	2023	0.48	0.04	40.82	4.53	0.67	0.09
1966							1995	0.61	0.01			0.64	0.03	2024	0.48	0.00	40.83	1.37	0.71	0.03
1967			4.96	0.67			1996							2025	0.50	0.01	43.40	1.23	0.29	0.42
1968	0.74	0.04	19.69	1.39	0.49	0.06	1997	0.57	0.02	34.14	1.73	0.66	0.04	2026						
1969							1998	0.60	0.04			0.45	0.07	2027	0.59	0.02	41.86	5.10	0.61	0.07
1970							1999	0.58	0.01	18.18	0.30	0.44	0.04	2028						
1971	0.61	0.01	32.94	1.90	0.74	0.05	2000							2029						
1972							2001							2030						
1973	0.57	0.02			0.60	0.07	2002	0.59	0.02	37.29	1.13	0.68	0.05	2031						

1974	0.79	0.03			0.53	0.10	2003									2032	0.65	0.01	30.92	1.45	0.76	0.05
-------------	------	------	--	--	------	------	-------------	--	--	--	--	--	--	--	--	-------------	------	------	-------	------	------	------

res	R1	R1err	R2	R2err	NOE	NOEerr	res	R1	R1err	R2	R2err	NOE	NOEerr	res	R1	R1err	R2	R2err	NOE	NOEerr
2033	0.61	0.01	34.54	2.02	0.62	0.04	2062	0.39	0.02			0.64	0.09	2091	0.48	0.02			0.43	0.06
2034							2063							2092						
2035	0.52	0.01	40.29	3.28	0.79	0.03	2064							2093						
2036							2065							2094	0.47	0.02	35.39	5.06	0.69	0.09
2037							2066	0.45	0.01	52.25	3.19	0.73	0.06	2095	0.45	0.03	38.43	2.85	0.77	0.06
2038	0.55	0.01	42.55	4.00	0.70	0.04	2067	0.44	0.02	39.45	0.77	0.71	0.04	2096	0.45	0.01	33.61	0.57	0.60	0.04
2039	0.52	0.01	14.59	2.58	0.77	0.06	2068							2097	0.50	0.01	23.56	4.75	0.60	0.04
2040	0.39	0.01	40.83	1.64	0.74	0.04	2069	0.48	0.03	34.92	7.19	0.70	0.11	2098	0.41	0.05	33.39	6.22	0.45	0.10
2041							2070							2099	0.42	0.01	36.63	4.27	0.56	0.08
2042							2071	0.45	0.03	38.18	3.75	0.68	0.05	2100	0.44	0.01	34.42	6.53	0.71	0.08
2043							2072	0.47	0.04	31.37	3.00	0.72	0.11	2101						
2044							2073							2102						
2045	0.57	0.01	27.70	3.72	0.41	0.06	2074							2103	0.42	0.02	42.63	0.77	0.79	0.06
2046							2075	0.45	0.02			0.70	0.07	2104						
2047	0.39	0.02	33.59	3.31	0.73	0.07	2076	0.45	0.01	35.83	1.66	0.64	0.07	2105						
2048	0.40	0.02			0.69	0.08	2077							2106						
2049	0.45	0.03			0.66	0.09	2078							2107						
2050	0.45	0.02	31.05	4.27	0.56	0.07	2079	0.47	0.01			0.69	0.11	2108						
2051	0.44	0.01	36.02	1.78	0.84	0.04	2080	0.47	0.02					2109						
2052	0.40	0.01	34.19	0.99	0.53	0.04	2081	0.46	0.03	41.91	4.58	0.63	0.07	2110						
2053	0.45	0.01	44.11	2.02	0.64	0.05	2082							2111						
2054							2083			40.37	8.90			2112	0.46	0.02	42.41	5.68	0.86	0.05
2055	0.47	0.01			0.69	0.08	2084							2113	0.44	0.03	29.17	5.33	0.75	0.08
2056	0.46	0.01	47.80	4.25	0.76	0.07	2085					0.73	0.08	2114						
2057			30.91	2.76			2086							2115						
2058							2087							2116						
2059							2088	0.52	0.01	48.57	6.96	0.63	0.09	2117						
2060	0.45	0.01	39.60	4.08	0.57	0.06	2089							2118			34.75	3.94		

2061	0.40	0.02	36.21	1.69	0.62	0.06	2090							2119						
res	R1	R1err	R2	R2err	NOE	NOEerr	res	R1	R1err	R2	R2err	NOE	NOEerr	res	R1	R1err	R2	R2err	NOE	NOEerr
2120							2149							2178						
2121	0.43	0.01	48.61	3.81	0.83	0.05	2150							2179	0.50	0.01	35.05	3.69	0.69	0.05
2122	0.44	0.01	40.06	3.39	0.66	0.07	2151							2180	0.55	0.02	31.79	2.66	0.60	0.07
2123							2152	0.62	0.04	27.30	1.49	0.48	0.05	2181						
2124	0.47	0.01	40.36	3.84	0.71	0.04	2153	0.90	0.05	7.03	0.52	0.24	0.15	2182	0.62	0.03	21.21	1.70	0.68	0.07
2125	0.47	0.01	44.84	3.52	0.74	0.04	2154							2183	0.56	0.01	27.76	2.17	0.77	0.05
2126							2155							2184	0.64	0.02			0.69	0.05
2127							2156							2185	0.55	0.03	35.83	2.77	0.65	0.04
2128							2157							2186	0.60	0.02	41.25	2.11	0.77	0.04
2129							2158							2187	0.58	0.02	32.44	2.40	0.65	0.06
2130							2159							2188	0.68	0.02	23.88	2.49	0.59	0.04
2131							2160							2189						
2132							2161							2190						
2133	0.44	0.01			0.70	0.04	2162							2191	0.58	0.02	27.70	4.57	0.89	0.05
2134	0.46	0.01	38.17	0.95	0.78	0.05	2163							2192	0.51	0.01	41.72	2.54	0.69	0.04
2135							2164							2193	0.62	0.01	24.35	1.36	0.59	0.04
2136	0.50	0.03	33.00	1.15	0.68	0.05	2165							2194	0.66	0.04	17.83	1.52	0.49	0.04
2137	0.75	0.05	22.57	1.16	0.33	0.06	2166	0.57	0.03			0.59	0.07	2195			29.52	1.17		
2138	0.83	0.02	23.53	0.64	0.42	0.04	2167							2196			13.62	3.49		
2139	0.69	0.06			0.47	0.09	2168							2197	0.71	0.01	29.72	1.16	0.72	0.06
2140	0.58	0.02			0.67	0.11	2169	0.70	0.02	26.56	1.05	0.45	0.07	2198	0.55	0.03	28.07	3.91	0.57	0.06
2141	0.57	0.01	14.07	1.76	0.57	0.04	2170	0.71	0.02	28.92	4.16	0.38	0.11	2199	0.56	0.02	36.26	3.35	0.86	0.05
2142							2171	0.64	0.02	29.58	0.64	0.67	0.04	2200						
2143	0.60	0.03			0.68	0.06	2172							2201	0.58	0.02	39.64	1.43	0.84	0.04
2144							2173	0.56	0.03	26.37	1.76	0.65	0.05	2202	0.59	0.01	36.28	4.02	0.75	0.04
2145							2174	0.61	0.01	32.12	2.04	0.78	0.04	2203						
2146							2175	0.47	0.01	26.79	1.49	0.66	0.04	2204						
2147							2176	0.54	0.01	31.88	3.66	0.76	0.03	2205	0.72	0.05			0.63	0.16
2148							2177	0.46	0.01	45.25	0.92	0.86	0.05	2206						

res	R1	R1err	R2	R2err	NOE	NOEerr	res	R1	R1err	R2	R2err	NOE	NOEerr	res	R1	R1err	R2	R2err	NOE	NOEerr
2207	0.52	0.01	47.57	6.72	0.59	0.04	2236	0.77	0.02	21.93	0.28	0.23	0.07	2265						
2208							2237	0.53	0.02	33.85	2.78	0.52	0.09	2266	0.62	0.03			0.83	0.10
2209							2238	0.56	0.01	33.64	1.40	0.70	0.04	2267	0.60	0.01	34.86	5.18	0.63	0.06
2210							2239	0.62	0.05	25.15	3.06	0.69	0.06	2268						
2211	0.46	0.02	40.83	13.94	0.65	0.09	2240	0.54	0.01	30.69	3.40	0.68	0.06	2269	0.58	0.01	42.30	4.37	0.78	0.06
2212	0.45	0.01	33.56	3.63	0.78	0.06	2241	0.54	0.03	30.31	3.80	0.86	0.04	2270	0.58	0.01	36.46	2.23	0.85	0.03
2213							2242							2271						
2214	0.46	0.03			0.70	0.09	2243							2272	0.64	0.01	37.23	1.69	0.54	0.06
2215			26.90	1.61			2244	0.57	0.01	37.09	2.33	0.63	0.04	2273	0.54	0.03			0.78	0.04
2216	0.55	0.01	26.29	1.31	0.77	0.03	2245	0.63	0.01	31.38	3.22	0.76	0.09	2274	0.54	0.02	39.00	2.60	0.71	0.06
2217							2246							2275	0.52	0.02	31.07	1.25	0.86	0.05
2218	0.55	0.02	21.62	2.12	0.64	0.04	2247	0.46	0.03			0.83	0.05	2276						
2219							2248	0.53	0.02			0.81	0.06	2277	0.54	0.02	41.79	3.04	0.82	0.05
2220							2249							2278			38.77			
2221	0.47	0.01	25.73	1.32	0.67	0.04	2250							2279	0.51	0.01	38.14	2.69	0.55	0.05
2222							2251	0.52	0.01			0.72	0.03	2280	0.54	0.01	30.91	2.17	0.81	0.03
2223	0.55	0.01	31.57	2.64	0.77	0.04	2252	0.48	0.01	37.62	1.80	0.80	0.03	2281	0.56	0.05	62.81	10.93	0.61	0.09
2224							2253							2282						
2225							2254	0.55	0.01	33.64	1.35	0.82	0.03	2283	0.50	0.01			0.80	0.06
2226	0.55	0.02			0.93	0.05	2255	0.55	0.01	5.32	0.81	0.79	0.04	2284	0.60	0.02	30.53	5.91	0.89	0.08
2227	0.48	0.01	43.52	2.61	0.77	0.05	2256							2285						
2228	0.59	0.01	27.65	2.29	0.87	0.06	2257	0.54	0.02	31.59	4.49	0.83	0.05	2286						
2229			13.97	1.07			2258	0.52	0.01	32.11	1.58	0.66	0.03	2287	0.60	0.03	34.65	0.79	0.55	0.05
2230							2259							2288	0.59	0.02			0.63	0.05
2231							2260	0.55	0.01	42.70	3.88	0.69	0.05	2289						
2232							2261							2290						
2233	0.56	0.04	25.15	2.03	0.49	0.05	2262	0.51	0.02	37.52	2.41	0.78	0.04	2291	0.57	0.05			0.86	0.05
2234							2263	0.56	0.04	21.48	2.87	0.74	0.11	2292	0.71	0.03	40.44	6.49	0.75	0.07
2235							2264							2293	0.73	0.03			0.53	0.05

res	R1	R1err	R2	R2err	NOE	NOEerr	res	R1	R1err	R2	R2err	NOE	NOEerr
2294	0.65	0.03	38.14	4.44	0.70	0.09	2323	0.50	0.02	36.34	4.26	0.72	0.04
2295							2324						
2296	0.59	0.01			0.81	0.04	2325	0.48	0.01	39.87	2.64	0.90	0.04
2297	0.50	0.02	43.54	2.35	0.76	0.04	2326	0.42	0.01	50.81	5.86	0.77	0.03
2298	0.55	0.01	34.46	2.39	0.87	0.03	2327	0.60	0.01	27.07	0.14	0.39	0.03
2299	0.52	0.02	42.72	3.56	0.56	0.05	2328						
2300	0.54	0.01			0.62	0.04	2329	0.94	0.01	11.18	0.36	0.01	0.62
2301	0.61	0.02	29.15	1.38	0.70	0.06							
2302													
2303	0.45	0.02	55.77	4.35	0.78	0.05							
2304													
2305	0.45	0.01	31.09	1.25	0.80	0.04							
2306	0.50	0.01	27.65	2.90	0.71	0.05							
2307	0.50	0.02	38.54	1.89	0.89	0.04							
2308	0.56	0.02	33.28	3.46	0.92	0.05							
2309	0.54	0.02			0.67	0.06							
2310													
2311	0.57	0.01	34.36	2.52	0.83	0.05							
2312	0.60	0.03	30.47	1.88	0.82	0.05							
2313	0.57	0.03	37.16	1.73	0.89	0.04							
2314	0.47	0.02	35.79	3.51	0.86	0.04							
2315	0.54	0.02			0.85	0.03							
2316	0.49	0.01			0.82	0.03							
2317													
2318	0.51	0.01	30.04	1.89	0.86	0.03							
2319													
2320													
2321	0.62	0.05	36.74	4.82	0.96	0.04							

2322	0.48	0.02	32.87	0.86	0.88	0.03	
-------------	------	------	-------	------	------	------	--

Figure S4. R_2/R_1 ratios of FLNa16-21 as a function of the amino acid sequence. Experimental data of FLNa16-21 is represented in panel A. In panel B experimental data of FLNa16-17 and FLNa18-19 are presented. The data were acquired from separate domain pairs, but represented here in one graph. Panels C and D show data calculated with HYDRONMR. In panel C, R_2/R_1 ratios were calculated for module pairs 1-2, 3-4, and 5-6 separately, mimicking a situation where the pairs would reorient independently. In panel D, R_2/R_1 ratios are shown for the (rigid) propeller-shaped model of FLNa16-21.

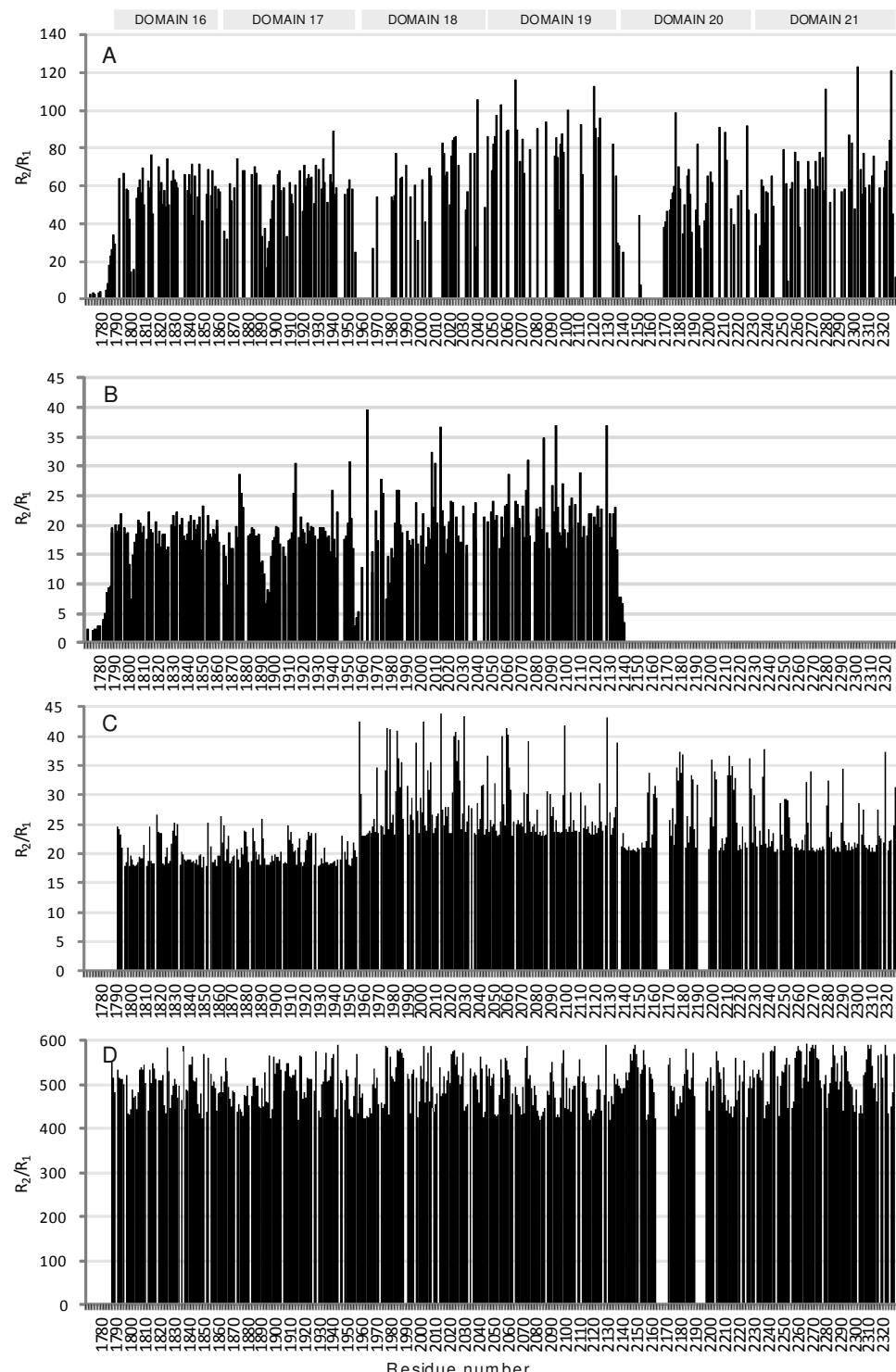


Figure S5. $R_1 \times R_2$ plot of FLNa16-21.

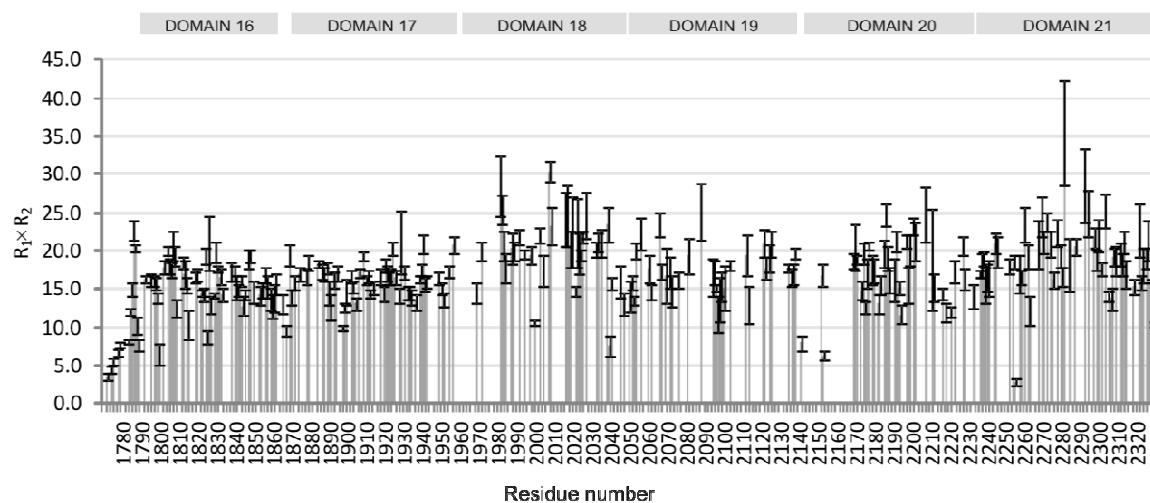


Figure S6. RSDM of domain pairs FLNa16-17 and FLNa18-19.

