



HAL
open science

β -Bulges: extensive structural analyses of β -sheets irregularities.

Pierrick Craveur, Agnel Praveen Joseph, Joseph Rebehmed, Alexandre de Brevern

► To cite this version:

Pierrick Craveur, Agnel Praveen Joseph, Joseph Rebehmed, Alexandre de Brevern. β -Bulges: extensive structural analyses of β -sheets irregularities.. Protein Science, 2013, 22 (10), pp.1366-78. 10.1002/pro.2324 . inserm-00926388

HAL Id: inserm-00926388

<https://inserm.hal.science/inserm-00926388v1>

Submitted on 16 Sep 2014

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

Table II. *Distribution of secondary structures and β -bulges in different SCOP classes.* Are given the percentage of proteins (prot), the percentage of residues (nb res), the percentage of helical, extended and coil residues (α , β and coil), the number of β -strands (strand nb.), the percentage of protein with at least one β -bulge (prot β -bulge), the percentage of amino acid assigned as a β -bulge, and the average number of β -bulge per strands (per str.) in each SCOP class. SCOP class mult. d. implies multi domains and memb+ correspond to membrane proteins.

class	prot	nb res	residues			strand nb.	β -bulge			β -bulge
	(%)	(%)	α (%)	β (%)	coil (%)		prot β -bulge (%)	(%)	per str (%)	frequency
all- α	16.83	14.45	61.54	2.50	35.96	2399	13.27	0.41	17.92	430
α / β	25.73	36.25	40.43	16.14	43.43	27874	65.40	1.73	16.00	4461
α + β	22.71	20.63	33.03	19.26	47.71	18557	85.01	4.14	33.08	11597
all- β	26.12	21.30	9.51	34.46	56.03	33448	94.92	7.52	34.67	711
mult. d.	1.76	3.59	38.35	15.11	46.54	2717	92.96	2.75	26.17	6138
small	4.90	1.64	14.40	19.36	66.24	1892	59.43	4.62	28.86	546
memb+	1.96	2.14	50.44	6.93	42.63	819	18.91	1.68	31.62	259
Sum	100.00	100.00	35.08	18.53	46.39	87706	68.07	3.35	27.53	24142