

Table 1: Red-teaming attack success rates of SafeProtein against protein foundation models on SafeProtein-Bench. For simplicity, only results using conservation mask inputs are shown. For each sequence masking ratio, the best success rate is highlighted in bold.

Gen Strategy	Model	Sequence Masking Ratio			
		0.1	0.2	0.25	0.3
Masked Seq	ESM3	39.63	13.99	7.23	1.63
	DPLM2	36.36	29.84	26.81	21.45
Masked Seq + Native Struct	ESM3	71.56	55.94	57.34	42.19
	DPLM2	42.66	34.50	32.40	27.97
Masked Seq + Foldseek Struct	ESM3	49.42	36.60	35.90	27.27
	DPLM2	44.29	33.10	30.54	26.57