

Summary of integrative structure determination of Protein motional details and dynamics of spectrin alpha chain (PDB ID: 9A0A, PDB-Dev ID: PDBDEV_0000046)

1. Model Composition	
<i>Entry composition</i>	spectrin alpha chain: Chain A (62 residues)
<i>Datasets used for modeling</i>	<ul style="list-style-type: none"> - Experimental model, PDB ID: 2NUZ - Experimental model, PDB ID: 6SCW - NMR data, BMRB: 34420
2. Representation	
<i>Resolution</i>	Atomic
<i>Number of rigid bodies, flexible units</i>	0, 3
<i>Flexible units</i>	A: 1-6, 7-61, 62-62
<i>Structural coverage (rigid bodies)</i>	100%
3. Restraints	
<i>Physical principles</i>	Information about physical principles was not provided
<i>Experimental data</i>	
4. Validation	
<i>Number of ensembles</i>	0
<i>Number of models in ensembles</i>	Not applicable
<i>Number of deposited models</i>	20
<i>Model precision (uncertainty of models)</i>	Model precision can not be calculated with one structure
<i>Data quality</i>	Data quality has not been assessed

<p><i>Model quality: assessment of atomic segments</i></p>	<ul style="list-style-type: none"> - Model-1: Clashscore = 0.98, Number of Ramachandran outliers = 0, Number of sidechain outliers = 6 - Model-2: Clashscore = 0.98, Number of Ramachandran outliers = 0, Number of sidechain outliers = 5 - Model-3: Clashscore = 1.96, Number of Ramachandran outliers = 2, Number of sidechain outliers = 4 - Model-4: Clashscore = 0.98, Number of Ramachandran outliers = 0, Number of sidechain outliers = 4 - Model-5: Clashscore = 1.96, Number of Ramachandran outliers = 0, Number of sidechain outliers = 4 - Model-6: Clashscore = 0.98, Number of Ramachandran outliers = 0, Number of sidechain outliers = 9 - Model-7: Clashscore = 0.98, Number of Ramachandran outliers = 0, Number of sidechain outliers = 6 - Model-8: Clashscore = 2.94, Number of Ramachandran outliers = 1, Number of sidechain outliers = 3 - Model-9: Clashscore = 0.98, Number of Ramachandran outliers = 1, Number of sidechain outliers = 8 - Model-10: Clashscore = 2.94, Number of Ramachandran outliers = 0, Number of sidechain outliers = 5 - Model-11: Clashscore = 0.98, Number of Ramachandran outliers = 1, Number of sidechain outliers = 6 - Model-12: Clashscore = 0.0, Number of Ramachandran outliers = 1, Number of sidechain outliers = 5 - Model-13: Clashscore = 2.94, Number of Ramachandran outliers = 1, Number of sidechain outliers = 3 - Model-14: Clashscore = 0.0, Number of Ramachandran outliers = 3, Number of sidechain outliers = 4 - Model-15: Clashscore = 0.0, Number of Ramachandran outliers = 0, Number of sidechain outliers = 5 - Model-16: Clashscore = 0.0, Number of Ramachandran outliers = 0, Number of sidechain outliers = 6 - Model-17: Clashscore = 1.96, Number of Ramachandran outliers = 2, Number of sidechain outliers = 5 - Model-18: Clashscore = 0.0, Number of Ramachandran outliers = 1, Number of sidechain outliers = 3 - Model-19: Clashscore = 2.94, Number of Ramachandran outliers = 0, Number of sidechain outliers = 6 - Model-20: Clashscore = 0.0, Number of Ramachandran outliers = 0, Number of sidechain outliers = 7
<p><i>Model quality: assessment of excluded volume</i></p>	<p>Not applicable</p>

<i>Fit to data used for modeling</i>	Fit of model to information used to compute it has not been determined
<i>Fit to data used for validation</i>	Fit of model to information not used to compute it has not been determined
5. Methodology and Software	
1. <i>Method</i>	modeling
<i>Name</i>	Restrained Molecular Dynamics Simulation
<i>Number of computed models</i>	200000
<i>Software</i>	GROMACS (version 2019.2)