

Supporting Information

Nanomedical Relevance of the Intermolecular Interaction Dynamics - Examples from Lysozymes and Insulins

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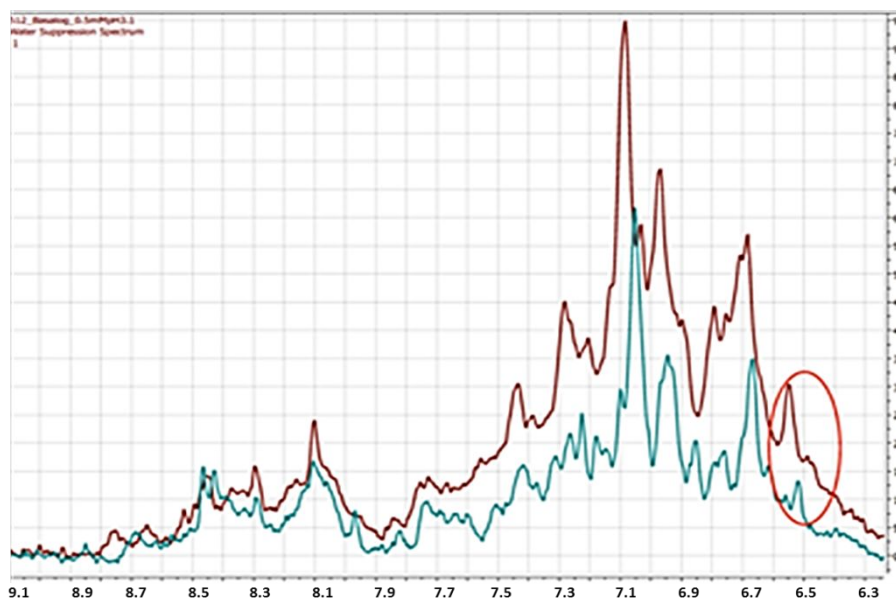
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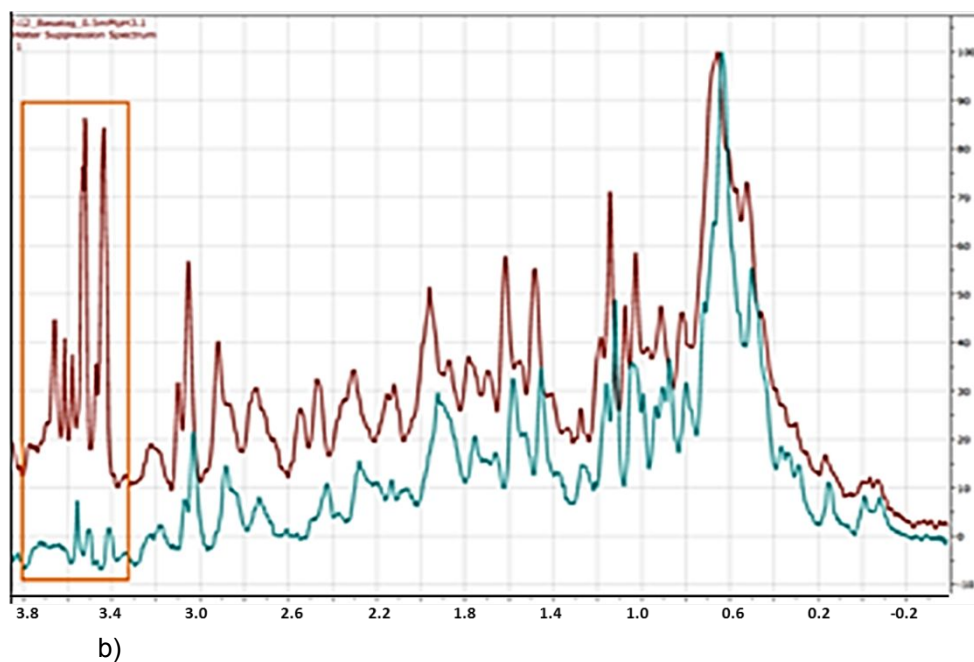
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1. Overlay of one-dimensional NMR spectra of the glargine insulin Lantus and glargine insulin Glaritus



a)



b)

Figure S1. Overlay of one-dimensional NMR spectra of the glargine insulin Lantus (blue) and glargine insulin Glaritus (red). **a)** low field (9.0 - 6.3 ppm); **b)** high field (3.8 - 0 ppm).

2. Overlay of crucial parts of glargine insulin 2D-NMR-spectra

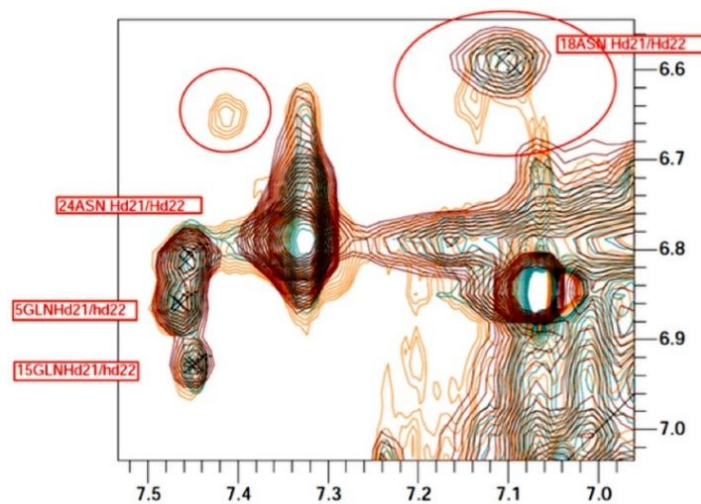


Figure S2. Overlay of crucial parts of glargine insulin 2D-NMR-spectra: Glargine insulin Lantus (blue) vs. glargine insulin Glaritus (red). Could be replaced by the new glargine insulin and human lysozyme Figures obtained in Prof. Sönnichsens lab.

3. Complex of human insulin with its receptor

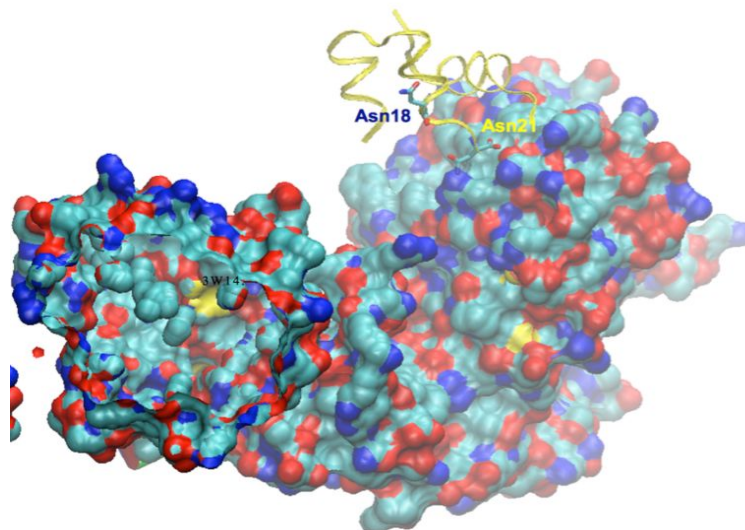


Figure S3. Complex of human insulin with its receptor (3W14.pdb) - The Asn18 insulin residue does not interfere with the receptor.

4. 1D-NMR-spectrum of Caninsulin

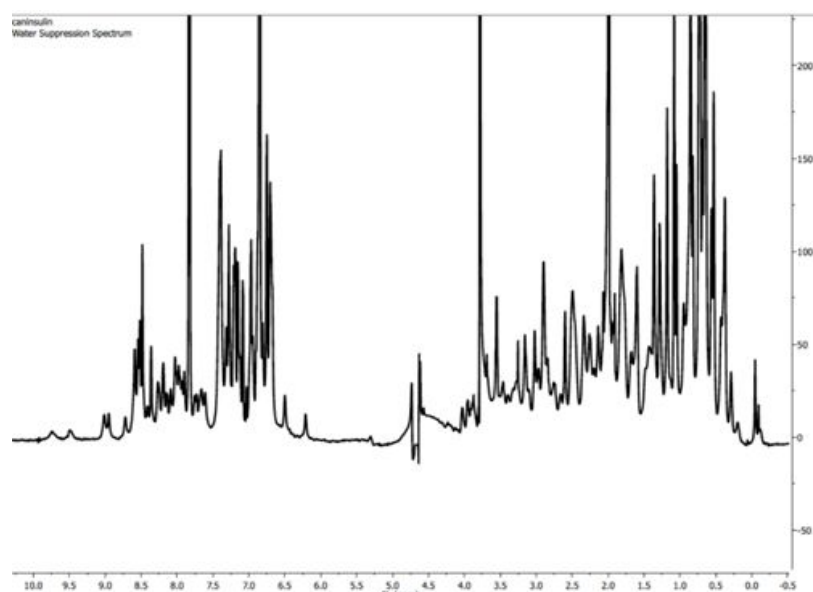


Figure S4. 1D-NMR-spectrum of Caninsulin (MSD). The amino acid sequence is identical with pig (porcine) insulin. In comparison to human insulin the Thr-residue is replaced by an Ala-residue at position 30 in the B-chain. The sharp lines of signals indicate that the monomeric state of Caninsulin during the NMR experiment.