Test protocol

Carbon sensitivity in protein

Use sample 2 - Ubiquitin 13C-labeled in 90%H2O/10%D2O, 20°C, non-spinning

Pulse sequence: relaxation delay -single hard pulse - acquisition

Acquisition parameters

Transmitter frequency: 95 ppm

Spectral width: 200 ppm

Number of points in FID: 64k (real)

Number of scans: 128

Number of dummy scans: 4

Relaxation delay: 2 s

Receiver gain: optimize

Processing parameters

Window function: exponential, line broadening 3.5 Hz, i.e. exp(-3.5 π t)

Number of points in spectrum: 64k (real)

Phase correction: automatic or manual, adjust signals to pure absorption

Base line correction: yes

Evaluation

Evaluate signal-to-noise ratio for the largest signal in the multiplet between 158 and 162 ppm (reference DSS), choose the best 10 ppm noise area from the region between 140 and 155 ppm. Use the formula

Where *Imax* is the maximal signal intensity and *npp* is the peak-to-peak value in the noise region.