An alkali-extractable O-methylated ribofuranose-containing heteroglycan, Nc-5-s, was isolated from wild-growing field colonies of the cyanobacterium Nostoc commune collected in Iceland, using ethanol fractionation and anion-exchange chromatography. The average molecular weight was estimated to be 1500kDa. Structural characterisation of the heteroglycan was performed by high-field NMR spectroscopy (1D proton, 2D-COSY, 2D-NOESY, 2D-TOCSY, 1H 13C-HSQC, HMBC, H2BC and HSQC-NOESY) as well as monosaccharide analysis after methanolysis by GC and supported by linkage analysis by GC–MS.
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