An alternative, more straightforward and effective method for the preparation of 1-(diphenylphosphino)-1´-(*N*,*N*-dimethylaminomethyl)ferrocene was developed using 1-bromo-1´-(diphenylphosphino)ferrocene as the starting material and Eschenmoser´s salt as an aminomethylation agent. Purity of thus prepared phosphinoamine was verified by ^{1}H and ^{31}P NMR spectroscopy and by comparison of the data with those reported in the literature (M. E. Wright, *Organometallics*, **1990**, *9*, 853). The coordination chemistry of this compound was investigated in gold(I) complexes. Thus, chlorido[1-(diphenylphosphino)-1´-(*N*,*N*-dimethyl-aminomethyl)ferrocene]gold(I) complex was synthesized and converted to ill-defined [1-(diphenylphosphino)-1´-(*N*,*N*-dimethylaminomethyl)ferrocene]gold(I) perchlorate by halogen abstraction with $AgClO_4$. Protonization of the nitrogen atom in both compounds with hydrogen chloride yielded the corresponding hydrochlorides. It was shown that 1-(diphenylphosphino)-1´-(*N*,*N*-dimethylaminomethyl)ferrocene is coordinated as a simple phosphine in the resulting complexes while its amine nitrogen is protonated. All these complexes were characterized by means of ^{1}H, ^{31}P and ^{13}C NMR spectroscopy, mass spectroscopy with electrospray ionisation, elemental analysis and by single-crystal X-ray diffraction analysis.