An ochratoxin free extracellular acid protease was produced by solid state cultivation of Aspergillus niger FFB1. The purified enzyme (48.7 kDa) showed an optimal milk clotting activity at pH 5.5 and 45°C in the presence of 0.01 M CaCl2. The enzyme was stable at least 24 h at 35°C in the pH range of 5.5–7.0. Thermal denaturation started above 45°C. Fresh cheese manufactured with reconstituted cow milk and the purified enzyme showed similar basic characteristics (pH 4.5, acid taste, white color) as marketed cheeses obtained with calf rennet. This emphasizes the value of exploiting local biological resources for value added food processing in developing countries