



SMP1 and *GmPM28* were produced from their respective pET23b plasmids in BL21(DE3)RIL (Stratagene) cells by inoculating 1L Luria-Bertani media ($100\mu\text{g}\cdot\text{mL}^{-1}$ ampicillin, $34\mu\text{g}\cdot\text{mL}^{-1}$ chloramphenicol) with 5mL starter cultures. Un-induced cells were grown at 37°C for circa 12 hours before they were harvested. Cells were centrifuged and the spent media removed from the pellet which was then resuspended in 10mL 10mM Tris-HCl, pH7.5. Lysozyme (1mg) was added to the cells and, after 3 freeze-thaw cycles, the lysate was treated with 500 units Benzonase nuclease on ice. The lysate was centrifuged and the supernatant removed and introduced onto a nickel charged, pre-washed, Hi-Trap (Novagen) column. The column was attached to an FPLC (LKB Broma) washed extensively with 10mM Tris-HCl buffer, pH 7.5 until the OD_{280} stabilized before a linear gradient of imidazole was introduced onto the column while 1mL fractions were collected. Aliquots from these fractions were run using SDS-PAGE (15% total acrylamide) and fractions assessed for those containing the preponderance of the recombinant, hexahistidyl tagged proteins. These fractions were: 1) evaluated for protein purity and; 2) combined and then; 3) dialysed against 2 changes of 1000x volume of 10mM Tris-HCl, pH7.5. Protein concentration was ascertained colormetrically (DC Protein Assay, Bio-Rad Laboratories, Hercules, CA, USA) and aliquots of the purified, dialysed protein were prepared and snap frozen in liquid nitrogen before being stored at -20°C .

Both SMP1 and *GmPM28* were recovered from lysed *E. coli* and the hexahistidyl tagged proteins purified on a nickel-charged column. SDS-PAGE (15%) was used to separate the proteins contained in 10 μL aliquots of: 1) molecular weight marker; 2) protein from the *E. coli* lysate before filtration; 3) the unbound proteins of the lysate after passage through the 1ml Hi-Trap, nickel-charged column; 4) the start of the column wash; 5) the end of the wash; 6-9) every third fraction collected during the imidazole gradient elution. Lanes 10-16) fraction 11 through 17; lanes 17-19) fractions 20, 23 and 26.