<sup>125</sup>I-labelled proteins of molecular weights 20 to 25, 43 to 46, 55 to 60, 74 to 80 and >100 × 10<sup>3</sup> were identified on the surface of adult *S. mansoni*. A glycoprotein of molecular weight >100 000 was detected by <sup>3</sup>H-labelling. Surface iodination of cercariae and schistosomula revealed a labelled band of molecular weight 74 to  $80 \times 10^3$ .