

Abstract

Three distinct types of storage hexamerins are expressed in the "last-instar" larvae of the rice moth, *Corcyra cephalonica*. A cDNA expression library was constructed from fat body-RNA and screened with a polyclonal antibody raised against purified hexamerin (SP2) of *Corcyra cephalonica*. Two slightly different "full-length" hexamerin cDNA clones (Hex2a and Hex2b) were isolated and sequenced. Both include open reading frames of 2109 bp which are translated into polypeptides of 703 amino acids with 92.5% identity. Signal peptides of 19 amino acids are present at the N-termini. The 684 amino acids native proteins have a high content of aryl groups (17.6%). According to both the criteria for amino acid composition and the phylogenetic analysis, Hex2a and Hex2b belong to the lepidopteran arylphorins. Northern blot studies revealed that the Hex2 genes are species- and tissue-specifically expressed in fat body cells of "last-instar" (= 5th) larvae.