

Presence of IP39-homologous genes in the euglenoid flagellate
Peranema trichophorum

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SUMMARY

The plasma membrane of *Euglena gracilis* possesses a densely arranged array of intra-membrane proteins, IP39, which are implicated in the mechanism of rounding-up movement of the cell (euglenoid movement). *Peranema trichophorum* is regarded as an ancestral species of euglenoid flagellates, and also shows typical euglenoid movement. Western blot analysis using anti-peptide antibodies against IP-39 showed the presence of homologous proteins in the membrane fraction of *P. trichophorum*, and PCR using gene-specific primers for IP39 amplified three DNA sequences in *P. trichophorum*. We further determined DNA sequences of these PCR products. We found that they have a high homology to the partial sequence of IP39 gene. These results reveal the existence of protein(s) in *P. trichophorum* that are homologous to IP39.