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**Cloning and characterization of OsPAP genes from rice**

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We isolated the 2 different purple acid phosphate genes (OsPAP1,2) from rice (*Oryza sativa*). The encoded polypeptides are 60% identical to other plants and show high degree of amino acid sequence similarity with purple acid phosphatase of *Arabidopsis thaliana* and tomato, barley. There are signal peptide in OsPAP1 and OsPAP2 polypeptides. OsPAP1 is 1377-bp long and contains an open reading frame encoding a 458 amino acid polypeptide, whereas OsAP2 is 1295-bp long and encodes a 431 amino acid polypeptide. The two clones are 17% similar in their nucleotide sequence within the coding region. The two polypeptides are 17% identical in their amino acid sequence. The RNA blot analysis showed that expression of OsAPs are various in response to phosphate deficiency. In particular expression of OsPAP1 and OsPAP2 were up-regulated in phosphate deficiency condition. We are generating transgenic rice and *Arabidopsis* plants overexpressing OsPAP genes.