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(54) Title: DNA SEQUENCES ENCODING PHYTASES OF RUMINAL MICROORGANISMS

(57) Abstract

Phytases derived from ruminal microorganisms are provided. The phytases are capable of catalyzing the release of inorganic phosphorus from phytic acid. Preferred sources of phytases include *Selenomonas, Prevotella, Treponema and Megasphaera.* A purified and isolated DNA encoding a phytase of *Selenomonas ruminantium* JY35 (ATCC 55785) is provided. Recombinant expression vectors containing DNAs encoding the phytases and host cells tra nsformed with DNAs encoding the phytases are also provided. The phytases are useful in a wide range of applications involving the dephosphorylation of phytate, including, among other things, use in animal feed supplements.

