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(54) Title: HUMAN BMP–4 PROMOTER AND METHOD FOR EXPLORING BONE–RELATED SUBSTANCE BY USING THE SAME

(57) Abstract

The present invention provides a method for exploring low molecular weight compounds which regulate positively or negatively the expression of human BMP–4 with reference to a reporter activity by using 5' upstream region gene containing the human BMP–4 promoter and an animal cell introduced with a recombinant expression vector that has been connected to an appropriate reporter gene. The low molecular weight compounds and their derivatives obtained by the present method have morphogenetic activity and inhibiting activity for bone and cartilage through the expression of human BMP–4 and are useful as preventive or therapeutic agents for cartilage and bone diseases.