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(71) Applicants: **RENSSELAER POLYTECHNIC INSTITUTE** [US/US]; 110 8th Street Troy, New York, 121803590 (US). **OTSUKA PHARMACEUTICAL FACTORY, INC.** [JP/JP]; 115, Aza Kuguhara, Tateiwa, Muya-cho, Naruto-shi, Tokushima, 7728601 (JP). **KIRIN BIOMATERIALS CO., LTD.** [JP/JP]; 10-2, Nakano 4-chome, Nakano-ku, Tokyo, 1640001 (JP).

(72) Inventors: **FUKUNAGA Kenta**; c/o KYOWA HAKKO BIO CO., LTD., 1-6-1, Otemachi, Chiyoda-ku, Tokyo, 1008185 (JP). **NISHIBARA Aki**; c/o KYOWA HAKKO BIO CO., LTD., 1-6-1, Otemachi, Chiyoda-ku, Tokyo, 1008185 (JP). **KATO Ryosuke**; c/o KYOWA HAKKO BIO CO., LTD., 1-6-1, Otemachi, Chiyoda-ku, Tokyo, 1008185 (JP). **KURATSU Masahiro**; c/o KYOWA HAKKO BIO CO., LTD., 1-6-1, Otemachi, Chiyoda-ku, Tokyo, 1008185 (JP). **HAYASHI Mikiro**; c/o KYOWA HAKKO BIO CO., LTD., 1-6-1, Otemachi, Chiyoda-ku, Tokyo, 1008185 (JP). **HASHIMOTO Shin-ichi**; c/o KYOWA HAKKO BIO CO., LTD., 1-6-1, Otemachi, Chiyoda-ku, Tokyo, 1008185 (JP).

(74) Agent: **EIKOH PATENT FIRM, P.C.**; Toranomon East Bldg. 10F, 7-13, Nishi-Shimbashi 1-chome, Minato-ku, Tokyo, 1050003 (JP).

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(54) Title: METHOD FOR PRODUCING SULFATED POLYSACCHARIDE AND METHOD FOR PRODUCING PAPS

(57) Abstract: An object of the present invention is to provide a method for easily producing sulfated polysaccharides by reacting a PAPS production/regeneration system utilizing the metabolic activity of a microorganism or a treated matter thereof with a microorganism expressing a sulfation enzyme or a treated matter or extract thereof upon mixing of inexpensive raw materials such as magnesium sulfate. Another object of the present invention is to provide a practical method for producing PAPS from inexpensive raw materials. The present invention relates to a method for producing a sulfated polysaccharide and a method for producing PAPS, the methods comprising a step of preparing a transformant (a) of a bacterium of the genus *Corynebacterium*, which comprises at least a gene encoding an ATP sulfurylase and a gene encoding an APS kinase which are introduced therein in an expressible manner, and in which a cell plasma membrane of the transformant (a) is substance-permeable, or a treated matter of the transformant (a); and a step of conducting a reaction for producing PAPS by using a reaction solution containing ATP or an ATP source, a sulfate ion source, and the transformant (a) or the treated matter thereof.



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