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| <p>(51) International Patent Classification <sup>6</sup> :<br/>C07D 403/06, 403/14, 401/14, 405/14,<br/>413/06, 413/14, 417/06, 417/14, 207/416,<br/>409/12, A61K 31/415, 31/42, 31/425</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | A1                          | <p>(11) International Publication Number: <b>WO 99/28315</b></p> <p>(43) International Publication Date: 10 June 1999 (10.06.99)</p> |                             |    |            |                          |    |            |                         |    |            |                         |    |            |                          |    |            |                            |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <p>(21) International Application Number: <b>PCT/KR98/00377</b></p> <p>(22) International Filing Date: <b>25 November 1998 (25.11.98)</b></p> <p>(30) Priority Data:</p> <table border="0"> <tr> <td>1997/63858</td> <td>28 November 1997 (28.11.97)</td> <td>KR</td> </tr> <tr> <td>1998/11359</td> <td>31 March 1998 (31.03.98)</td> <td>KR</td> </tr> <tr> <td>1998/23698</td> <td>23 June 1998 (23.06.98)</td> <td>KR</td> </tr> <tr> <td>1998/24423</td> <td>26 June 1998 (26.06.98)</td> <td>KR</td> </tr> <tr> <td>1998/31512</td> <td>3 August 1998 (03.08.98)</td> <td>KR</td> </tr> <tr> <td>1998/46457</td> <td>30 October 1998 (30.10.98)</td> <td>KR</td> </tr> </table> <p>(71) Applicant (for all designated States except US): LG CHEMICAL LTD. [KR/KR]; 20, Yoido-dong, Yongdungpo-ku, Seoul 150-010 (KR).</p> <p>(72) Inventors; and</p> <p>(75) Inventors/Applicants (for US only): LEE, Hyun, Il [KR/KR]; LG Apt. #6-303, 381-4, Doryong-dong, Youseong-ku, Daejeon 305-340 (KR). KOH, Jong, Sung [KR/KR]; LG Apt. #9-404, Doryong-dong, Youseong-ku, Daejeon 305-340 (KR). LEE, Jin, Ho [KR/KR]; LG Apt. #8-410, Doryong-dong, Youseong-ku, Daejeon 305-340 (KR). JUNG, Won, Hee [KR/KR]; Sang-a Apt. #109-507, 1, Mannyun-dong, Seo-ku, Daejeon 302-150 (KR).</p> |                             | 1997/63858                                                                                                                           | 28 November 1997 (28.11.97) | KR | 1998/11359 | 31 March 1998 (31.03.98) | KR | 1998/23698 | 23 June 1998 (23.06.98) | KR | 1998/24423 | 26 June 1998 (26.06.98) | KR | 1998/31512 | 3 August 1998 (03.08.98) | KR | 1998/46457 | 30 October 1998 (30.10.98) | KR | <p>SHIN, You, Seung [KR/KR]; LG Chemical Yeonrip #4, 388-11, Doryong-dong, Youseong-ku, Daejeon 305-340 (KR). CHUNG, Hyun, Ho [KR/KR]; LG Apt. #9-205, 386-4, Doryong-dong, Youseong-ku, Daejeon 305-340 (KR). KIM, Jong, Hyun [KR/KR]; LG Apt. #3-312, 386-1, Doryong-dong, Youseong-ku, Daejeon 305-340 (KR). RO, Seong, Gu [KR/KR]; LG Chemical Apt. #9-302, Doryong-dong, Youseong-ku, Daejeon 305-340 (KR). CHOI, Tae, Saeng [KR/KR]; LG Apt. #8-310, 386-4, Doryong-dong, Youseong-ku, Daejeon 305-340 (KR). JBONG, Shin, Wu [KR/KR]; LG Yeonrip #202, 388-11, Doryong-dong, Youseong-ku, Daejeon 305-340 (KR). KWAK, Tae, Hwan [KR/KR]; LG Apt. #8-403, Doryong-dong, Youseong-ku, Daejeon 305-340 (KR). AHN, In, Ae [KR/KR]; LG Dormitory #106, 386-1, Doryong-dong, Youseong-ku, Daejeon 305-340 (KR). KIM, Hyun, Sung [KR/KR]; LG Satack #2-106, Doryong-dong, Youseong-ku, Daejeon 305-340 (KR). LEE, Sun, Hwa [KR/KR]; Expo Apt. #406-905, Jeonmin-dong, Youseong-ku, Daejeon 305-390 (KR). KIM, Kwi, Hwa [KR/KR]; Expo Apt. #406-1303, 464-1, Jeonmin-dong, Youseong-ku, Daejeon 305-390 (KR). YOO, Jung, Kwon [KR/KR]; Keunmaeul Apt. #128-101, Galma-dong, Seo-ku, Daejeon 302-171 (KR).</p> <p>(74) Agents: CHOI, Kyu, Pal et al.; 824-20, Yeoksam-dong, Kangnam-ku, Seoul 135-080 (KR).</p> <p>(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).</p> <p>Published<br/>With international search report.</p> |
| 1997/63858                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 28 November 1997 (28.11.97) | KR                                                                                                                                   |                             |    |            |                          |    |            |                         |    |            |                         |    |            |                          |    |            |                            |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
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| 1998/46457                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 30 October 1998 (30.10.98)  | KR                                                                                                                                   |                             |    |            |                          |    |            |                         |    |            |                         |    |            |                          |    |            |                            |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <p>(54) Title: IMIDAZOLE DERIVATIVES HAVING AN INHIBITORY ACTIVITY FOR FARNESYL TRANSFERASE AND PROCESS FOR PREPARATION THEREOF</p> <div style="text-align: center;"> <p>(1)</p> </div> <p>(57) Abstract</p> <p>The present invention relates to a novel imidazole derivative represented by formula (1) which shows an inhibitory activity against farnesyl transferase or pharmaceutically acceptable salts or isomers thereof, in which A, n<sub>1</sub> and Y are defined in the specification; to a process for preparation of the compound of formula (1); to intermediates which are used in the preparation of the compound of formula (1); and to a pharmaceutical composition comprising the compound of formula (1) as an active ingredient.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                             |                                                                                                                                      |                             |    |            |                          |    |            |                         |    |            |                         |    |            |                          |    |            |                            |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |