

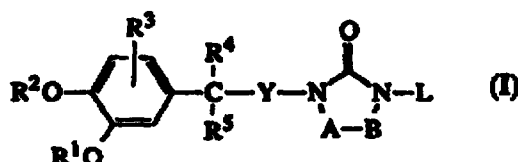
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## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

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(54) Title: 1,3-DIHYDRO-1-(PHENYLALKYL)-2H-IMIDAZOL-2-ONE DERIVATIVES HAVING PDEIV AND CYTOKINE ACTIVITY



## (57) Abstract

The present invention describes the use of compounds for the manufacture of a medicament for treating warm-blooded animals suffering from disease states related to an abnormal enzymatic or catalytic activity of phosphodiesterase IV (PDE IV), and/or disease states related to a physiologically detrimental excess of cytokines, in particular allergic, atopic and inflammatory diseases, said compounds having formula (I), the N-oxide forms, the pharmaceutically acceptable acid or base addition salts and the stereochemically isomeric forms thereof, wherein R<sup>1</sup> and R<sup>2</sup> each independently are hydrogen; C<sub>1</sub>-alkyl; difluoromethyl; trifluoromethyl; C<sub>3</sub>-cycloalkyl; a saturated 5-, 6- or 7-membered heterocycle containing one or two heteroatoms selected from oxygen, sulfur or nitrogen; indanyl; bicyclo[2.2.1]-2-heptenyl; bicyclo[2.2.1]heptanyl; C<sub>1</sub>-alkylsulfonyl; arylsulfonyl; or substituted C<sub>1</sub>-alkyl; R<sup>3</sup> is hydrogen, halo or C<sub>1</sub>-alkyloxy; R<sup>4</sup> is hydrogen; halo; optionally substituted C<sub>1</sub>-alkyl; trifluoromethyl; C<sub>3</sub>-cycloalkyl; carboxyl; C<sub>1</sub>-alkyloxycarbonyl; C<sub>3</sub>-cycloalkylaminocarbonyl; aryl; Het<sup>1</sup>; or R<sup>4</sup> is a radical of the formula: -O-R<sup>6</sup>; or -NH-R<sup>7</sup>; R<sup>5</sup> is hydrogen, halo, hydroxy or C<sub>1</sub>-alkyl; or R<sup>4</sup> and R<sup>5</sup> taken together may form a bivalent radical of the formula: -(CH<sub>2</sub>)<sub>n</sub>-; -CH<sub>2</sub>-CH<sub>2</sub>-O-CH<sub>2</sub>-CH<sub>2</sub>-; -CH<sub>2</sub>-CH<sub>2</sub>-N(R<sup>8</sup>)-CH<sub>2</sub>-CH<sub>2</sub>-; or -CH<sub>2</sub>-CH=CH-CH<sub>2</sub>-; Y is a direct bond, halo, C<sub>1</sub>-alkanediyl or C<sub>1</sub>-alkanediyl; -A-B- is a bivalent radical of the formula: -CR<sup>9</sup>=CR<sup>10</sup>-; or -CHR<sup>9</sup>-CHR<sup>10</sup>-; and L is hydrogen; optionally substituted C<sub>1</sub>-alkyl; C<sub>1</sub>-alkylcarbonyl; C<sub>1</sub>-alkyloxycarbonyl; optionally substituted C<sub>3</sub>-alkenyl; optionally substituted piperidinyl; C<sub>1</sub>-alkylsulfonyl or arylsulfonyl; aryl is optionally substituted phenyl; Het<sup>1</sup> is morpholinyl or optionally substituted piperidyl, -furanyl, -thienyl, -hydroxypyridinyl, -imidazolyl, -thiazolyl, -oxazolyl, -isquinolinyl, -quinolinyl, -piperidinyl, or -piperazinyl; Het<sup>2</sup> is morpholinyl or optionally substituted piperidinyl, -piperazinyl, -pyridinyl, -furanyl or -thienyl. The present invention also relates to new compounds having PDE IV and cytokine inhibiting activity, processes for their preparation and compositions comprising said new compounds.