Abstract

Title of Invention: ANTI-WRINKLE AGENTS

Provided are anti-wrinkle agents having a novel scaffold that is suitable as components for external skin preparations such as cosmetics. The anti-wrinkle agents comprise compounds represented by general formula (1), stereoisomers thereof, or pharmacologically acceptable salts thereof. Said anti-wrinkle agents have excellent efficacy in improving wrinkles and sagging that are caused by skin aging with increased age or occur as a result of photoaging due to ultraviolet rays exposure. [In the formula, R_1 represents a hydrogen atom or a 1 to 8 carbon straight or branched alkyl group. R_2 represents $-SH$, $-SO_3H$, $-S-S-X_1$, $-S-X_2$, $-SO-X_3$, $-SO_2-X_4$, $-SO_2-NY_1-X_5$ or $-SO_2-NY_2-Y_3$. X_1-X_5 independently are hydrogen atoms or 1 to 8 carbon aliphatic hydrocarbon groups or 5 to 12 carbon aromatic moiety wherein carbon atoms may be substituted with heteroatoms. Y_1 to Y_3 independently represent hydrogen atoms or 1 to 8 carbon linear or branched alkyl groups. R_3 represents a hydrogen atom or acyl group having a 1 to 8 carbon straight or branched alkyl chain. R_4 represents a 5 to 12 carbon aromatic group or polycyclic condensed aromatic group that may have unsubstituted or substituted groups. m represents an integer 0-3 and n represents an integer 1 or 2.]

Figure 1.