

DESCRIPTION

TITLE OF THE INVENTION: TOPICAL COMPOSITION

TECHNICAL FIELD

[0001]

The present invention relates to a topical composition having an improved whitening effect.

BACKGROUND ART

[0002]

It is known that pigmentation such as skin spots, freckles, dullness, darkening, chloasma, and senile plaques is caused by excessive formation of melanin due to ultraviolet exposure, hormonal abnormalities, physical stimulation, or the like, and deposition of the melanin in the skin. Such skin pigmentation is a major cosmetic concern, especially for women.

[0003]

Conventionally, a component that suppresses the melanin generation and/or dilutes generated melanin, such as ascorbic acid and a derivative thereof, is known as a so-called whitening component, and is widely used in a topical composition for whitening for the purpose of achieving a pigmentation suppressing effect on the skin. However, the attempt to achieve the pigmentation suppressing effect on the skin depending only on the effect of the whitening component cannot be considered enough to sufficiently satisfy the consumer needs.

[0004]

Therefore, a formulation for improving the pigmentation suppressing effect on the skin by the whitening component has been studied. For example, Patent Document 1 describes that using an extract of a plant of the Magnolia genus of the Magnoliaceae

family in combination with ascorbic acid and a derivative thereof in a topical composition enhances a melanin generation suppressing action thereby achieving an excellent whitening effect, and describes that further blending it with a pulp of a plant of the Prunus genus of the Rosaceae family, specifically, a prune extract, improves the whitening effect.

[0005]

Various other cosmetic effects of plant extracts have been studied. For example, regarding a cherry extract, Patent Document 2 discloses an anti-allergic agent, an active oxygen scavenger, and a lipid peroxidation inhibitor containing an extract obtained using water of a leaf of cherry tree, ethanol, 1,3-butylene glycol, or a mixture of two or more kinds of these. Patent Document 3 discloses that in a skin moisturizing agent further containing a first component for which a cherry extract can be selected and a predetermined second component as active components, the first component has an effect of reinforcing the skin moisturizing action and also enhances the antioxidant power of cells to suppress active oxygen. That is, it is known that the cherry extract has an anti-allergic effect, an active oxygen eliminating effect, a lipid peroxidation suppressing effect, a moisturizing action enhancing effect, and the like.

PRIOR ART DOCUMENTS

PATENT DOCUMENTS

[0006]

Patent Document 1: Japanese Patent Laid-open Publication No. 2017-66080

Patent Document 2: Japanese Patent Laid-open Publication No. H8-245409

Patent Document 3: Japanese Patent Laid-open Publication No. 2008-115098

SUMMARY OF THE INVENTION

PROBLEMS TO BE SOLVED BY THE INVENTION

[0007]

The demand of consumers for whitening is increasing year by year, and it is conceivable that conventional whitening agents cannot satisfy the demand of consumers in some cases. In order to follow the increasingly growing demand of consumers in the future, development of a topical composition having a higher whitening effect is desired.

[0008]

Therefore, it is an object of the present invention to provide a topical composition having a higher whitening effect.

MEANS FOR SOLVING THE PROBLEM

[0009]

As a result of intensive studies, the present inventors have found that the whitening effect of a topical composition containing ascorbic acid and/or a derivative thereof, an extract of a plant of the Magnolia genus of the Magnoliaceae family, and a prune extract is dramatically improved by blending the topical composition with a cherry tree leaf extract, which has not been reported to have a whitening effect so far. The present invention has been completed by further studies based on such findings. That is, the present invention provides the inventions of the following aspects.

[0010]

Item 1. A topical composition containing: a component (A) of ascorbic acid and/or a derivative thereof; a component (B) of an extract of a plant of the Magnolia genus of the Magnoliaceae family; a component (C) of a prune extract; and a component (D) of a cherry tree leaf extract.

Item 2. The topical composition according to item 1, wherein the component (B) is an extract of *Magnolia obovata*.

Item 3. The topical composition according to item 1 or 2, wherein the component (A) is ascorbic acid 2-glucoside.

Item 4. The topical composition according to any one of items 1 to 3, wherein a content of the component (D) is 0.00001 to 0.1% by weight in terms of dry weight.

Item 5. The topical composition according to any one of items 1 to 4, wherein a content of the component (D) is 0.008 to 0.1% by weight in terms of dry weight.

Item 6. The topical composition according to any one of items 1 to 5, wherein the topical composition is a topical composition for whitening.

ADVANTAGES OF THE INVENTION

[0011]

With the topical composition of the present invention, the melanin generation suppressing effect is dramatically improved, so that a further improved whitening effect can be obtained.

BRIEF DESCRIPTION OF THE DRAWINGS

[0012]

Fig. 1 shows a change in melanin value before and after application of the topical composition of the present invention when the topical composition was applied to women having senile plaques on the cheek.

EMBODIMENTS OF THE INVENTION

[0013]

The topical composition of the present invention is characterized by containing (A) ascorbic acid and/or a derivative thereof (sometimes referred to as component (A)), an extract of a plant of the Magnolia genus of the Magnoliaceae family (sometimes referred to as component (B)), a prune extract (sometimes referred to as component (C)), and a cherry tree leaf extract (sometimes referred to as component (D)).

Hereinafter, the topical composition of the present invention is described in detail.

[0014]

(A) Ascorbic acid and/or derivatives thereof

The topical composition of the present invention contains ascorbic acid and/or a derivative thereof as the component (A). Ascorbic acid and/or derivatives thereof are known components that have an antioxidant action and are known to have a whitening effect.

[0015]

Ascorbic acid and derivatives thereof used in the present invention are not particularly limited as long as they are pharmaceutically or cosmetically acceptable, and for example, ascorbic acid; ascorbic acid 2-glucoside; ascorbic acid monoalkyl esters such as ascorbic acid monostearate, ascorbic acid monopalmitate, and ascorbic acid monooleate; ascorbic acid monoesters such as ascorbic acid monophosphate ester and magnesium salts thereof; ascorbic acid dialkyl esters such as ascorbic acid distearate, ascorbic acid dipalmitate, and ascorbic acid diolate; ascorbic acid diesters such as ascorbic acid diphosphate ester and salts thereof; trialkyl esters such as ascorbic acid tristearate, ascorbic acid tripalmitate, and ascorbic acid triolate; ascorbic acid triesters such as ascorbic acid triphosphate ester; 3-O-ethyl, 6-acetyl-ascorbic acid, 3-O-ethyl, 6-butyl ascorbic acid, 3-O-ethyl, 6-lauroyl ascorbic acid, 3-O-ethyl, 6-palmitoyl ascorbic acid, 3-O-ethyl, 6-oleoyl ascorbic acid, 3-O-ethyl, 6-stearoyl ascorbic acid, 3-O-ethyl, 6-beherminoyl-ascorbic acid, and the like. These ascorbic acids and derivatives thereof may be either L-form or D-form, but L-form is preferable.

[0016]

These ascorbic acids and derivatives thereof may be used alone, or may be used in combination of two or more of the same. Among these ascorbic acids and

derivatives thereof, a derivative of ascorbic acid is preferable, and ascorbic acid 2-glucoside is more preferable from the viewpoint of stability, whitening effect, and the like.

[0017]

The content of the component (A) in the topical composition of the present invention may be appropriately set according to the formulation form of the topical composition and the like, and is, for example, 0.1 to 10% by weight, preferably 0.3 to 8% by weight, and further preferably 0.5 to 7% by weight.

[0018]

(B) Extract of plant of the *Magnolia* genus of the Magnoliaceae family

The topical composition of the present invention contains an extract of a plant of the *Magnolia* genus of the Magnoliaceae family as the component (B). When the topical composition of the present invention contains the component (B), the melanin generation suppressing action is enhanced, and an excellent whitening effect can be exhibited.

[0019]

The extract of a plant of the *Magnolia* genus of the Magnoliaceae family can be obtained by performing solvent extraction using a plant of the *Magnolia* genus of the Magnoliaceae family as an extraction raw material.

[0020]

Examples of the plant of the *Magnolia* genus of the Magnoliaceae family used as an extraction raw material include those described in “Illustrated Flora of the World in Color” (First edition issued on April 20, 1986, Hokuryukan Co., Ltd.), and specific examples thereof include *Magnolia biloba*, *Magnolia biondii*, *Magnolia denudata*, *Magnolia kobus*, *Magnolia liliiflora* (*Magnolia quinquepeta*), *Magnolia officinalis*,

Magnolia sprengeri, and Magnolia obovata. Among these plants for an extraction raw material, one plant may be used alone, or two or more plants may be used in combination. Among these extraction raw materials, Magnolia obovata is preferable from the viewpoint of exerting a more excellent whitening effect.

[0021]

The extract of the plant of the Magnolia genus of the Magnoliaceae family may be one extracted from the bark of the plant, but the part used for extraction may include, in addition to the bark, a flower, a spikes, a pericarp, a fruit, a stem, a leaf, a branch, a trunk, a rhizome, a root, a seed, and the like, if necessary, and may be an entire tree.

[0022]

Examples of the extraction solvent used for the solvent extraction of a plant of the Magnolia genus of the Magnoliaceae family, include: water; lower alcohols having 1 to 5 carbon atoms such as methanol, ethanol, propanol, isopropyl alcohol, butanol, and isobutanol; polyhydric alcohols such as propylene glycol, 1,3-butylene glycol, and glycerin; and a liquid mixture of any of these. Among these extraction solvents, water, a liquid mixture of a lower alcohol having 1 to 5 carbon atoms and water, a liquid mixture of a polyhydric alcohol and water are preferable, and water, a liquid mixture of ethanol and water, a liquid mixture of 1,3-butylene glycol and water, and a liquid mixture of propylene glycol and water are more preferable.

[0023]

When a liquid mixture of a lower alcohol having 1 to 5 carbon atoms and/or a polyhydric alcohol and water is used as the extraction solvent, the concentration of the lower alcohol having 1 to 5 carbon atoms and/or the polyhydric alcohol is not particularly limited, and is, for example, 20 to 90% by weight, preferably 30 to 85% by weight in total of the lower alcohol having 1 to 5 carbon atoms and/or the polyhydric

alcohol.

[0024]

The extract of a plant of the Magnolia genus of the Magnoliaceae family can be obtained by extracting an extract of the plant part as it is with use of the extraction solvent, or doing so after subjecting the plant part to drying, shredding, crushing, squeezing, an enzyme treatment, boiling, or a fermentation treatment, as required. As the solvent extraction, a commonly used method for extracting a plant extract can be employed, and specifically, for example, an immersion method such as cold immersion or warm immersion, a method of stirring under heating, or alternatively, a percolation method can be used.

[0025]

The extract obtained by the solvent extraction may be used in a liquid state, or may be subjected to a treatment such as concentration or drying as required so as to be used as a concentrate or a dried product. Further, after concentration or drying, the obtained concentrate or dried product may be washed with a non-soluble solvent for purification before being used, or this concentrate or dried product may be further dissolved or suspended in an appropriate solvent before being used.

[0026]

In addition, as an extract of a plant of the Magnolia genus of the Magnoliaceae family, a commercially available extract can be used conveniently. Examples of the extract of the bark of Magnolia obovata include “Pharcolex Magnolia Obovata B” and “Pharcolex Magnolia Obovata E” manufactured by ICHIMARU PHARCOS Co., Ltd.

[0027]

The content of the component (B) in the topical composition of the present invention may be appropriately set according to the formulation form of the topical

composition and the like, and is, for example, 0.00001% by weight or more, specifically 0.00001 to 0.1% by weight of the component (B) in terms of dry weight. From the viewpoint of exerting a more excellent whitening effect, the content of the component (B) in the topical composition of the present invention is preferably 0.00005 to 0.05% by weight, more preferably 0.0001 to 0.01% by weight, and particularly preferably 0.0008 to 0.003% by weight of the component (B) in terms of dry weight.

[0028]

In the topical composition of the present invention, the ratio of the component (A) to the component (B) is determined according to the respective contents described above, and from the viewpoint of exerting a more excellent whitening effect, the ratio is 0.001 parts by weight or more, preferably 0.001 to 1 part by weight, more preferably 0.005 to 0.5 parts by weight, still more preferably 0.01 to 0.1 parts by weight, and particularly preferably 0.04 to 0.1 parts by weight of the component (B) in terms of dry weight, based on 100 parts by weight of the component (A).

[0029]

(C) Prune extract

The topical composition of the present invention contains a prune extract as the component (C). When the topical composition of the present invention contains the component (C), the whitening effect can be further improved.

[0030]

A prune extract can be obtained by performing solvent extraction using prunes as an extraction raw material.

[0031]

The prunes used as the extraction raw material are prunes of the Prunoideae subgenus of the Prunus genus of the Rosaceae family, and specific examples thereof

include those described in “Illustrated Flora of the World in Color” (First edition issued on April 20, 1986, Hokuryukan Co., Ltd.). More specific examples thereof include prunes (*Prunus domestica*), apricots, Japanese plum (Japanese plum), and Japanese plum. Among these plants for an extraction raw material, one plant may be used alone, or two or more plants may be used in combination. Among these extraction raw materials, prunes (*Prunus domestica*) are preferred from the viewpoint of further enhancing the effect of improving the whitening effect.

[0032]

The prune extract may be any extract as long as it is extracted from the pulp of the plant, but the plant part to be subjected to extraction may include a peel, a seed, and the like in addition to the pulp as necessary.

[0033]

Examples of the extraction solvent used in the extraction treatment performed on prunes include: water; lower alcohols having 1 to 5 carbon atoms such as methanol, ethanol, propanol, isopropyl alcohol, butanol, and isobutanol; polyhydric alcohols such as propylene glycol, 1,3-butylene glycol, 1,2-butylene glycol, 1,4-butylene glycol, 1,5-pentanediol, 1,2-pentanediol, 1,3-pentanediol, 1,4-pentanediol, and 1,3,5-pentanetriol; phenoxyethanol, paraben, ethylparaben, methylparaben, propylparaben; and a liquid mixture of any of these. Among these extraction solvents, water, a liquid mixture of a polyhydric alcohol and water, a liquid mixture of a lower alcohol having 1 to 5 carbon atoms and water are preferable, among which water, and a liquid mixture of 1,3-butylene glycol and water are more preferable.

[0034]

When a liquid mixture of a lower alcohol having 1 to 5 carbon atoms and/or a polyhydric alcohol and water is used as the extraction solvent, the concentration of the

lower alcohol having 1 to 5 carbon atoms and/or the polyhydric alcohol is not particularly limited, and is, for example, 20 to 90% by weight, preferably 30 to 85% by weight in total of the lower alcohol having 1 to 5 carbon atoms and/or the polyhydric alcohol.

[0035]

The prune extract is obtained by subjecting the plant part to be extracted as it is to an extraction treatment, or by treating the plant part to be extracted by drying, shredding, crushing, squeezing, an enzyme treatment, boiling, or a fermentation treatment, as required, and then subjecting to an extraction treatment, with use of the extraction solvent described above. In particular, in the present invention, it is desirable that the plant of the Prunus genus of the Rosaceae family to be subjected to the extraction treatment is treated with an enzyme in advance. By using the prune treated with an enzyme as an extraction raw material, an extract having a remarkably enhanced action of improving the whitening effect can be obtained.

[0036]

The enzyme used for the enzymatic treatment performed on prunes may be any fibrinolytic enzyme capable of degrading fibrins in the pulp, and specific examples thereof include cellulase, hemicellulase, and pectinase. These enzymes may be used alone, or may be used in combination of two or more of these.

[0037]

In addition, the enzyme treatment conditions are not particularly limited. The conditions may be set within the range of the operating temperature and operating pH of the enzyme to be used, and the treatment may be performed until the enzyme reaction proceeds so as to obtain a desired effect. Exemplary conditions include conditions for causing a reaction at 20 to 45°C for 3 to 24 hours. After prunes are treated with an

enzyme, the enzyme may be deactivated, if necessary, by heating or the like, before solvent extraction.

[0038]

As the solvent extraction, a commonly used method for extracting a plant extract can be employed, and specifically, for example, an immersion method such as cold immersion or warm immersion, a method of stirring under heating, or alternatively, a percolation method can be used.

[0039]

The extract obtained by the solvent extraction may be used in a liquid state, or may be subjected to a treatment such as concentration or drying as required so as to be used as a concentrate or a dried product. Further, after concentration or drying, the obtained concentrate or dried product may be washed with a non-soluble solvent for purification before being used, or this concentrate or dried product may be further dissolved or suspended in an appropriate solvent before being used.

[0040]

In addition, as a prune extract or an extract of prunes treated with an enzyme, a commercially available extract can be used conveniently. Examples of the enzymatically decomposed prune extract include “Clairju” manufactured by ICHIMARU PHARCOS Co., Ltd.

[0041]

The content of the component (C) in the topical composition of the present invention may be appropriately set according to the formulation form of the topical composition and the like, and is, for example, 0.00001% by weight or more, specifically 0.00001 to 0.1% by weight of the component (C) in terms of dry weight. From the viewpoint of further enhancing the effect of improving the whitening effect, the content

of the component (C) in the topical composition of the present invention is preferably 0.00005 to 0.01% by weight, more preferably 0.0001 to 0.001% by weight, and particularly preferably 0.0005 to 0.001% by weight of the component (C) in terms of dry weight.

[0042]

In the topical composition of the present invention, the ratio of the component (B) and the component (C) is determined according to the respective contents described above, and from the viewpoint of exerting a more excellent whitening effect, the ratio is 1 part by weight or more, preferably 1 to 5000 parts by weight, more preferably 5 to 500 parts by weight, further preferably 5 to 100 parts by weight, particularly preferably 10 to 100 parts by weight, and most preferably 50 to 80 parts by weight of the component (C) in terms of dry weight, based on 100 parts by weight of the component (B) in terms of dry weight.

[0043]

(D) Cherry tree leaf extract

The topical composition of the present invention contains a cherry tree leaf extract as the component (D). The topical composition of the present invention, containing the component (D) together with the components (A), (B), and (C), makes it possible to further improve the whitening effect.

[0044]

The cherry tree leaf extract can be obtained by performing a solvent extraction treatment using the leaf of the cherry as an extraction raw material.

[0045]

The cherry tree to be used as an extraction raw material is a cherry tree of the Amygdaloideae subfamily of the Prunus genus of the Rosaceae family, and specific

examples thereof include those described in “Illustrated Flora of the World in Color” (First edition issued on April 20, 1986, Hokuryukan Co., Ltd.), and more specific examples thereof include *Prunus Leveilleana* Koene, *Prunus apetara*, *Prunus buergeriana*, *Prunus grayana*, *Prunus jamasakura*, *Prunus incisa*, *Cerasus spachiana*, *Prunus lannesiana* ‘Sekiyama’, *Prunus speciosa*, *Prunus maximowiczii*, *Prunus nipponica*, *Prunus nipponica* var. *kurilensis* Wilson., *Prunus subhirtella*, *Prunus sargentii*, *Prunus spinulosa*, *Prunus ssiori*, *Prunus subhirtella*, *Prunus × yedoensis*, *Prunus zippeliana*, *Prunus conradinae*, and the like. Among these plants for an extraction raw material, one plant may be used alone, or two or more plants may be used in combination. Among these extraction raw materials, *Prunus × yedoensis* is preferred from the viewpoint of further enhancing the effect of improving the whitening effect.

[0046]

Examples of the cherry tree leaf extract include: water; lower alcohols having 1 to 5 carbon atoms such as methanol, ethanol, propanol, isopropyl alcohol, butanol, and isobutanol; polyhydric alcohols such as propylene glycol, 1,3-butylene glycol, 1,2-butylene glycol, 1,4-butylene glycol, 1,5-pentanediol, 1,2-pentanediol, 1,3-pentanediol, 1,4-pentanediol, and 1,3,5-pentanetriol; phenoxyethanol, paraben, ethylparaben, methylparaben, propylparaben; and a liquid mixture of any of these. Among these extraction solvents, water, a liquid mixture of a polyhydric alcohol and water, a liquid mixture of a lower alcohol having 1 to 5 carbon atoms and water are preferable, among which a liquid mixture of a lower alcohol having 1 to 5 carbon atoms and water is more preferable.

[0047]

When a liquid mixture of a lower alcohol having 1 to 5 carbon atoms and/or a

polyhydric alcohol and water is used as the extraction solvent, the concentration of the lower alcohol having 1 to 5 carbon atoms and/or the polyhydric alcohol is not particularly limited, and is, for example, 20 to 90% by weight, preferably 30 to 85% by weight in total of the lower alcohol having 1 to 5 carbon atoms and/or the polyhydric alcohol.

[0048]

The cherry tree leaf extract is obtained by subjecting the cherry tree leaves as it is to an extraction treatment, or by treating the cherry tree leaves by drying, shredding, crushing, squeezing, an enzyme treatment, boiling, or a fermentation treatment, as required, and then subjecting to an extraction treatment, with use of the extraction solvent described above. As the solvent extraction, a commonly used method for extracting a plant extract can be employed, and specifically, for example, an immersion method such as cold immersion or warm immersion, a method of stirring under heating, or alternatively, a percolation method can be used.

[0049]

The extract obtained by the solvent extraction may be used in a liquid state, or may be subjected to a treatment such as concentration or drying as required so as to be used as a concentrate or a dried product. Further, after concentration or drying, the obtained concentrate or dried product may be washed with a non-soluble solvent for purification before being used, or this concentrate or dried product may be further dissolved or suspended in an appropriate solvent before being used.

[0050]

In addition, as a cherry tree leaf extract, a commercially available extract can be used conveniently. For example, examples of the cherry tree leaf extract include “SAKURA Extract B” manufactured by ICHIMARU PHARCOS Co., Ltd.

[0051]

The content of the component (D) in the topical composition of the present invention may be appropriately set according to the formulation form of the topical composition and the like, and is, for example, 0.00001% by weight or more, specifically 0.00001 to 0.1% by weight of the component (D) in terms of dry weight. From the viewpoint of exerting a more excellent whitening effect, the content of the component (D) in the topical composition of the present invention is preferably 0.00005 to 0.1% by weight, and more preferably 0.0001 to 0.1% by weight of the component (D) in terms of dry weight. From the viewpoint of exerting a more excellent whitening effect and the viewpoint of formulation stability, when the topical composition of the present invention is a lotion, the preferred content of the component (D) is 0.0001 to 0.01% by weight, and preferably 0.0002 to 0.0005% by weight of the component (D) in terms of dry weight; when the topical composition of the present invention is an emulsion, the preferred content of the component (D) is preferably 0.0001 to 0.1% by weight, preferably 0.0002 to 0.1% by weight, more preferably 0.0005 to 0.01% by weight, and further preferably 0.001 to 0.005% by weight of the component (D) in terms of dry weight; and when the topical composition of the present invention is a cream, the preferred content of the component (D) is 0.0001 to 0.1% by weight, preferably 0.0002 to 0.1% by weight, more preferably 0.008 to 0.1% by weight, further preferably 0.01 to 0.05% by weight, and still further preferably 0.01 to 0.02% by weight of the component (D) in terms of dry weight.

[0052]

In the topical composition of the present invention, the ratio of the component (A) and the component (D) is determined according to the respective contents described above, and from the viewpoint of exerting a more excellent whitening effect, the ratio is

0.0005 parts by weight or more, and more specifically 0.0005 to 5 parts by weight of the component (D) in terms of dry weight, based on 100 parts by weight of the component (A). From the viewpoint of exerting a more excellent whitening effect, the content of the component (D) in the topical composition of the present invention is preferably 0.0025 to 5 parts by weight, and more preferably 0.005 to 5 parts by weight of the component (D) in terms of dry weight, based on 100 parts by weight of the component (A). From the viewpoint of exerting a more excellent whitening effect and the viewpoint of formulation stability, when the topical composition of the present invention is a lotion, the preferred content of the component (D) is 0.005 to 0.5 parts by weight, and preferably 0.01 to 0.025 parts by weight of the component (D) in terms of dry weight, based on 100 parts by weight of the component (A); when the topical composition of the present invention is an emulsion, the preferred content of the component (D) is 0.005 to 5 parts by weight, preferably 0.01 to 5 parts by weight, more preferably 0.025 to 0.5 parts by weight, and further preferably 0.05 to 0.25 parts by weight of the component (D) in terms of dry weight, based on 100 parts by weight of the component (A); and when the topical composition of the present invention is a cream, the preferred content of the component (D) is 0.005 to 5 parts by weight, preferably 0.01 to 25 parts by weight, more preferably 0.4 to 5 parts by weight, further preferably 0.5 to 2.5 parts by weight, and still further preferably 0.5 to 1 part by weight of the component (D) in terms of dry weight, based on 100 parts by weight of the component (A).

[0053]

In the topical composition of the present invention, the ratio of the component (B) and the component (D) is determined according to the respective contents described above, and from the viewpoint of exerting a more excellent whitening effect, the ratio is

0.08 parts by weight or more, and more specifically 0.08 to 8100 parts by weight of the component (D) in terms of dry weight, based on 100 parts by weight of the component (B). From the viewpoint of exerting a more excellent whitening effect, the content of the component (D) in the topical composition of the present invention is preferably 4 to 8100 parts by weight, and more preferably 8 to 8100 parts by weight of the component (D) in terms of dry weight, based on 100 parts by weight of the component (B). From the viewpoint of exerting a more excellent whitening effect and the viewpoint of formulation stability, when the topical composition of the present invention is a lotion, the preferred content of the component (D) is 8 to 820 parts by weight, and preferably 16 to 45 parts by weight of the component (D) in terms of dry weight, based on 100 parts by weight of the component (B); when the topical composition of the present invention is an emulsion, the preferred content of the component (D) is 8 to 8150 parts by weight, preferably 16 to 8150 parts by weight, more preferably 40 to 850 parts by weight, and further preferably 80 to 450 parts by weight of the component (D) in terms of dry weight, based on 100 parts by weight of the component (B); and when the topical composition of the present invention is a cream, the preferred content of the component (D) is 8 to 8150 parts by weight, preferably 16 to 8150 parts by weight, more preferably 650 to 8150 parts by weight, further preferably 810 to 4500 parts by weight, and still further preferably 810 to 1700 parts by weight of the component (D) in terms of dry weight, based on 100 parts by weight of the component (B).

[0054]

In the topical composition of the present invention, the ratio of the component (C) and the component (D) is determined according to the respective contents described above, and from the viewpoint of exerting a more excellent whitening effect, the ratio is 1.2 parts by weight or more, and more specifically 1.2 to 13000 parts by weight of the

component (D) in terms of dry weight, based on 100 parts by weight of the component (C). From the viewpoint of exerting a more excellent whitening effect, the content of the component (D) in the topical composition of the present invention is preferably 6.4 to 13000 parts by weight, and more preferably 12 to 13000 parts by weight of the component (D) in terms of dry weight, based on 100 parts by weight of the component (C). From the viewpoint of exerting a more excellent whitening effect and the viewpoint of formulation stability, when the topical composition of the present invention is a lotion, the preferred content of the component (D) is 12 to 1300 parts by weight, and preferably 25 to 65 parts by weight of the component (D) in terms of dry weight, based on 100 parts by weight of the component (B); when the topical composition of the present invention is an emulsion, the preferred content of the component (D) is 12 to 13000 parts by weight, preferably 25 to 13000 parts by weight, more preferably 64 to 1300 parts by weight, and further preferably 120 to 650 parts by weight of the component (D) in terms of dry weight, based on 100 parts by weight of the component (B); and when the topical composition of the present invention is a cream, the preferred content of the component (D) is 12 to 13000 parts by weight, preferably 25 to 13000 parts by weight, more preferably 1000 to 13000 parts by weight, further preferably 1200 to 6500 parts by weight, and still further preferably 1200 to 2600 parts by weight of the component (D) in terms of dry weight, based on 100 parts by weight of the component (B).

[0055]

Other components

The topical composition of the present invention may contain other pharmacological components in addition to the above-described components as necessary. Such pharmacological component is, for example: a melanin generation

suppressing agent (arbutin, tranexamic acid, L-cysteine, glutathione, kojic acid, etc.); an antihistamine (diphenhydramine, diphenhydramine hydrochloride, chlorpheniramine maleate, etc.), local anesthetics (lidocaine, dibucaine, methyl aminobenzoate, procaine, tetracaine, bupivacaine, mepivacaine, chloroprocaine, proparacaine, meprylcaine, or a salt of any of these, orthocaine, oxethazaine, oxypolyentoxydecane, scopolia extract, percaminebase, polyoxyethylene lauryl ether, etc.), an anti-inflammatory agent (allantoin, glycyrrhizic acid, methyl glycyrrhizinate, stearyl glycyrrhizinate, dipotassium glycyrrhizinate, monoammonium glycyrrhizinate, glycyrrhetinic acid, pyridoxine glycyrrhetinate, stearyl glycyrrhetinate, glyceryl glycyrrhetinate, monoglucuronide glycyrrhetinate, salicylic acid, methyl salicylate, glycol salicylate, indomethacin, felbinac, diclofenac sodium, loxoprofen sodium, ufenamate, ibuprofenpiconol, suprofen, bendazac, suprofen, bufexamac, etc.), a germicide (benzalkonium chloride, dequalinium chloride, benzethonium chloride, cetyl pyridinium chloride, chlorhexidine chloride, chlorhexidine gluconate, isopropyl methyl phenol, ammonium water, sulfadiazine, lactic acid, phenol, etc.), a skin protective agent (collodion, castor oil, etc.), a blood circulation promoter (nonylic acid vanillylamide, nicotinic acid benzyl ester, capsaicin, capsicum extract, etc.), a cooling agent (menthol, camphor, etc.), a vitamin (vitamin A, B, D, E, etc.), a mucopolysaccharide (sodium chondroitin sulfate, glucosamine, sodium hyaluronate, etc.), or the like.

[0056]

The topical composition of the present invention may contain a base or an additive as necessary in order to obtain a desired formulation form. Such bases and additives are not particularly limited as long as they are pharmaceutically acceptable. Examples of the bases and additives include: water; aqueous bases such as lower monovalent alcohols (ethanol, isopropanol, etc.), polyhydric alcohol (propylene glycol,

ethylene glycol, 1,3-butylene glycol, isoprene glycol, diethylene glycol, dipropylene glycol, glycerol, etc.); oil bases such as oils (olive oil, safflower oil, soybean oil, camellia oil, corn oil, rapeseed oil, sunflower oil, cottonseed oil, peanut oil, lard, squalane, fish oil, etc.), mineral oils (liquid paraffin, paraffin, gelled hydrocarbon, petroleum jelly, etc.), waxes (beewax, carnauba wax, candelilla wax, ceresin, rice bran was, microcrystalline was, etc.), ester oils (isopropyl myristate, isopropyl adipate, diethyl sebacate, isopropyl sebacate, isopropyl palmitate, cetyl palmitate, cetyl 2-ethyl hexanoate, ethyl oleate, tri(2-ethyl hexanoate) glyceryl, tri(caprylate/caprate) glyceryl, etc.), fatty acid alkyl ester, fatty acids (stearic acid, oleic acid, palmitic acid, behenic acid, linoleic acid, lanolin, etc.), fatty acid esters (cetyl palmitate, isopropyl palmitate, ethyl linoleate, etc.), medium-chain triglyceride, higher alcohols (stearyl alcohol, cetanol, behenyl alcohol, myristyl alcohol, oleyl alcohol, hexadecyl alcohol, lanolin alcohol, cholesterol, dihydrocholesterol, phytosterol, lauryl alcohol, cetostearyl alcohol, linoleyl alcohol, octyl dodecanol, hexyl decanol, isostearyl alcohol, etc.), cetyl 2-ethyl hexanoate, and silicone oils (dimethyl polysiloxane, cyclic silicone, etc.); surfactants such as: nonionic surfactants (sorbitan fatty acid esters (sorbitan monooleate, sorbitan monoisostearate, sorbitan monolaurate, sorbitan monopalmitate, sorbitan monostearate, sorbitan sesquioleate, sorbitan trioleate, diglycerol sorbitan penta-2-ethylhexylate, diglycerol sorbitan tetra-2-ethylhexylate, etc.); glycerol polyglycerol fatty acids (mono cottonseed oil fatty acid glycerin, glycerol monoerucate, glycerol sesquioleate, glycerol monostearate, triethylhexanoin, glycerol α,α' -oleate pyroglutamate, glycerol monostearate maleate, etc.); propylene glycol fatty acid esters (propylene glycol monostearate, etc.); hydrogenated castor oil derivative; glycerol alkylether, POE-sorbitan fatty acid esters (POE- sorbitan monooleate, POE- sorbitan monostearate, POE- sorbitan monoisostearate, POE- sorbitan monooleate, POE-sorbitan tetraoleate,

etc.); POE sorbit fatty acid esters (POE-sorbit monolaurate, POE-sorbit monooleate, POE-sorbit pentaoleate, POE-sorbit monostearate, etc.); POE-glycerol fatty acid esters (POE-monooleates such as POE-glycerol monostearate, POE-glycerol monoisostearate, POE-glycerol triisostearate, etc.); POE-fatty acid esters (POE-distearate, POE-monodioleate, distearic acid ethylene glycol, etc.); POE-alkylethers (POE-lauryl ether, POE-oleyl ether, POE-stearyl ether, POE-behenyl ether, POE-2-octyl dodecyl ether, POE-cholestanol ether, etc.); pluronic-type surfactants (Pluronic, etc.); POE-POP-alkylethers (POE-POP-cetyl ether, POE-POP-2-decyl tetradecyl ether, POE-POP-monobutyl ether, POE-POP-hydrogenated lanolin, POE-POP-glycerol ether, etc.); tetra POE-tetra POP-ethylenediamine condensates (Tetronic, etc.); POE-castor oil hydrogenated castor oil derivative (for example, POE-castor oil, POE-hydrogenated castor oil, POE-hydrogenated castor oil monoisostearate, POE-hydrogenated castor oil triisostearate, POE-hydrogenated castor oil monopyroglutamic acid monoisostearic acid diester, POE-hydrogenated castor oil maleic acid, etc.); alkanol amides (palm oil fatty acid diethanol amide, lauric acid monoethanol amide, fatty acid isopropanol amide, etc.); sucrose fatty acid ester; alkyl ethoxy dimethyl amine oxide; and trioleyl phosphoric acid, etc.), and anionic surfactants (fatty acid soaps (sodium laurate, sodium palmitate, etc.); higher alkyl sulfuric acid ester salts (lauryl sulfuric acid sodium, lauryl sulfuric acid potassium, etc.); alkylether sulfuric acid ester salts (POE-lauryl sulfuric acid triethanolamine, POE-lauryl sulfuric acid sodium, etc.); N-acyl sarcosine acids (lauroyl sarcosine sodium, etc.); higher fatty acid amide sulfonic acid salts (N-myristoyl-N-methyl taurine sodium, palm oil fatty acid methyl taurine sodium, lauryl methyl taurine sodium, etc.); sulfosuccinic acid salts (sodium di-2-ethyl hexyl sulfosuccinate, sodium monolauroyl monoethanol amide polyoxyethylene sulfosuccinate, sodium lauryl polypropylene glycol sulfosuccinate, etc.); alkyl benzene

sulfonic acid salts (sodium linear dodecyl benzene sulfonate, triethanolamine linear dodecyl benzene sulfonate, linear dodecyl benzene sulfonic acid, etc.); higher fatty acid ester sulfuric acid ester salts (sodium hydrogenated palm oil fatty acid glycerol sulfate, etc.); N-acyl glutamic acid salts (monosodium N-lauroyl glutamate, disodium N-stearoyl glutamate, monosodium N-myristoyl-L-glutamate, etc.); POE-alkylether carboxylic acid; POE alkyl allyl ether carboxylic acid salt; α -olefin sulfonic acid salt; sodium lauroyl monoethanol amide succinate; and N-palmitoyl aspartic acid ditriethanolamine, etc.); aqueous thickeners (carboxy vinyl polymer, alkyl modified carboxy vinyl polymer, cellulose gum, xanthan gum, hydroxypropyl methyl cellulose, hydroxyethyl cellulose, Carboxymethyl cellulose, (acryloyl dimethyl taurine ammonium/VP) copolymer, sodium polyacrylate, carrageenan, xanthan gum, sclerotium gum, polystyrene sulfonate, karaya gum, pectine, etc.); additives such as porous powder materials (inorganic powdered materials such as silica, talc, titanium oxide, mica, zinc oxide, kaoline, barium sulfate, bismuth oxychloride, aluminium hydroxide, aluminum silicate, anhydrous silicic acid, hydrous silicic acid, and montmorillonite; and polymeric powders such as polyester, polyethylene, polystyrene, methacrylic acid methyl resin, cellulose, nylon, copolymer of styrene and acrylic acid, polypropylene, vinyl chloride, etc.); cooling agents (menthol, camphor, borneol, peppermint water, peppermint oil, etc.), preservatives (phenoxy ethanol, methylparaben, propylparaben, benzoic acid, benzoic acid sodium, sorbic acid, etc.), flavoring agents (cital, 1,8-cineole, citronellal, farnesol, etc.), coloring agents (tar pigments (brown No. 201, blue No. 201, yellow No. 4, yellow No. 403, etc.), cacao pigment, chlorophyll, aluminum oxide, etc.), pH adjusters (phosphoric acid, hydrochloric acid, citric acid, sodium citrate, succinic acid, tartaric acid, sodium hydroxide, potassium hydroxide, triethanolamine, triisopropanol amine, etc.), wetting agents (sodium dl-pyrrolidone carboxylate liquid solution, D-

sorbitol solution, macrogol, etc.), stabilizers (dibutyl hydroxy toluene, butyl hydroxy anisol, sodium edetate, sodium metaphosphate, L-arginine, L-aspartic acid, DL-alanine, glycine, sodium erythorbate, gallic acid propyl, sodium sulfite, sulfur dioxide, chlorogenic acid, catechin, rosemary extract, etc.), antioxidants, ultraviolet absorbers, chelating agents, adhesives, buffer agents, dissolution adjuvants, solubilizers, preservatives, and the like.

[0057]

Formulation form

The formulation form of the topical composition is not particularly limited as long as it is a formulation form that can be applied transdermally, and may be any of a liquid form, a solid form, a semi-solid form (cream, gel, ointment, paste), and the like. The topical composition of the present invention may be a non-emulsified preparation such as an aqueous preparation or an oily preparation, or may be an emulsified preparation such as an oil-in-water type emulsified preparation or a water-in-oil type emulsified preparation.

[0058]

The formulation form of the topical composition is preferably a liquid form or a cream form, and more preferably a cream form from the viewpoint of more effectively exerting a whitening effect.

[0059]

In addition, the topical composition may be in any formulation form of a topical pharmaceutical for skin, a cosmetic, a skin cleanser, and the like, as long as it is applied to the skin. Preferable examples thereof include skin-care topical pharmaceuticals, and cosmetics.

[0060]

Specific examples of the formulation form of the topical composition include topical pharmaceuticals for skin such as liquid preparations (contains lotions, sprays, aerosols, and emulsions.), water-soluble ointments, oil-and-fat ointments, creams, foams, gels, and patches; cosmetics such as ointments, creams, milky lotions, lotions, packs, and gels; and skin cleansers such as body shampoos, hair shampoos, and rinses. Among these formulation forms, topical pharmaceuticals for skin are preferable, liquid preparations and creams are more preferable, lotions, emulsions and creams are further more preferable, emulsions and creams are still more preferable, and creams are particularly preferable. Preparing the composition into any of these formulation forms can be carried out by a formulation process using additives corresponding to the formulation form, by a known method described in “the Japanese Pharmacopoeia General Rules for Preparations, Sixteenth Edition” or the like.

[0061]

Application

The topical composition of the present invention can suppress the generation of melanin, and can prevent or improve skin spots, freckles, dullness, chloasma, senile plaques, and darkening due to physical stimulation, and the like. Thus it is suitably used as a topical composition for whitening.

EXAMPLES

[0062]

Hereinafter, the present invention will be described more specifically with reference to examples, but the present invention is not limited thereto.

[0063]

The manufacturers and the like of main components used in the following test examples and formulation examples are as follows.

L-ascorbic acid 2-glucoside: trade name “AA2G” (manufactured by Hayashibara Co., Ltd.)

Magnolia obovata extract: trade name “Pharcolex Hoonoki (Magnolia obovata) B” (manufactured by ICHIMARU PHARCOS Co., Ltd.), liquid form, dry solid content concentration of 0.175% by weight, an extract obtained by performing solvent extraction on the bark of Magnolia obovata (Magnolia obovata Thunberg) (Magnoliaceae) (Japanese Magnolia Bark) using an aqueous 1,3-butylene glycol solution

Prune extract: trade name “Clairju” (manufactured by ICHIMARU PHARCOS Co., Ltd.), a liquid form, a dry solid content concentration of 7.78% by weight, extract obtained by adding water and 1,3-butylene glycol to a product obtained by decomposing pulp of prune (Prunus domestica Lindl.(Rosaceae)) with a fibrinolytic enzyme

Paeonia suffruticosa extract: trade name “Pharcolex Botanpi (paeonia suffruticosa root bark) B” (manufactured by ICHIMARU PHARCOS Co., Ltd.), liquid, dry solid content concentration: 0.9% by weight, extract obtained by solvent extraction performed on root bark of paeonia suffruticosa Andrews (Paeonia moutan Sims) (Paeoniaceae)) using an ethanol solution

Cherry tree leaf extract: trade name “SAKURA Extract B” (manufactured by ICHIMARU PHARCOS Co., Ltd.), liquid, dry solid content concentration: 2% by weight, extract obtained by solvent extraction performed on leaves of Prunus yedoensis Matsum. using an aqueous ethanol solution

[0064]

Test Example 1: Evaluation of melanin generation suppressing effect (in vitro)

Using a three-dimensional cultured skin model (MEL-300-A, manufactured by MatTek Corp.), the melanin generation suppressing effect was evaluated. A specific

test method is as follows.

[0065]

The MEL-300 skin model cups were set in wells of a 6-well plate containing 0.9 ml of a maintenance medium (EPI-100LLMM) warmed to 37°C, and the plate was placed in an incubator (37°C, 5% CO₂) and left to stand for 1 hour. Then, 50 µl each of the topical compositions (pH 6.5) having the compositions shown in Table 1 was added to the inside of each of the skin model cups, and the mixture was cultured in an incubator (37°C, 5% CO₂) for 24 hours. Thereafter, they were irradiated with ultraviolet (UV-B) under the condition of 0.5 mW×12 seconds per one time, and cultivation was further performed for 24 hours. The ultraviolet irradiation was performed using a UVB lamp (Toshiba health-care fluorescent lamp, manufactured by Toshiba Lighting & Technology Corporation) and a UV detector (UV-1, manufactured by TOPCON Corporation). Thereafter, the medium was replaced, and the cells were further cultured for 24 hours. Each time the medium was replaced, 50 µl of a predetermined sample liquid was added to the skin model cup. Furthermore, ultraviolet irradiation and medium replacement were further performed 4 times under the same conditions, whereby ultraviolet irradiation was performed 5 times in total (total ultraviolet irradiation amount: 30 mJ/cm²), and medium replacement was performed 5 times in total. Thereafter, the cell viability and the melanin generation amount were measured by the following method. In addition, as a control, an aqueous solution containing 0.5% by weight of 1,3-butylene glycol was used as a sample liquid, and a test was performed under the same conditions as described above.

[0066]

< Measurement of Cell Activity >

Cell viability was measured by an MTT test. Specifically, 0.75 ml of an MTT

test agent and 8.25 ml of the maintenance medium (EPI-100LLMM) were mixed, and added so as to be 300 µl per well. The skin model cups were transferred to the medium containing the MTT prepared above, and cultured in an incubator for exactly 3 hours. The bottom of the tissue was then lightly washed with a PBS washing solution, and the tissue was transferred to a new plate. 1 ml each of 0.04N HCl acidic isopropanol was added to the inside of the skin model cup, and with a cover seal being attached to the plate to avoid evaporation and to shield the plate from light, blue formazan was extracted overnight in an incubator. After extraction, isopropanol was mixed well and 200 µl of it was transferred to a 96 well plate. The optical densities at 570 nm and 620 nm were measured with a microplate reader, and the difference between them was defined as cell activity.

[0067]

< Measurement of melanin generation amount >

The MEL-300 skin model cups were washed with PBS, and then the cell tissues were peeled off with a scalpel and collected. The obtained cell tissues were immersed in PBS, crushed, and centrifuged (2,000 rpm, 10 min). Thereafter, the supernatant was removed, and a liquid mixture of ethanol and dimethyl ether (ethanol : dimethyl ether = 3 : 1 (volume ratio)) was further added, followed by stirring and centrifugation (2,000 rpm, 10 min). The supernatant was then removed and dried. A 1N aqueous sodium hydroxide solution (containing 10% by weight DMSO) was added to the dried products, treated in a water bath at 90°C for 20 minutes, and heated and melted. Thereafter, the heated and melted solution was gently stirred by vortexing, cooled to room temperature, and then the absorbance at 405 nm was measured to determine the melanin generation amount.

[0068]

By dividing the melanin generation amount by the cell viability, the melanin generation amount per cell was determined. Furthermore, with the melanin generation amount per cell in Reference Example 1 (negative control; NC) being assumed to be 100, the ratio of the melanin generation amount per cell (melanin generation ratio) when each sample liquid was added was calculated.

[0069]

The obtained results are shown in Table 1. As is apparent from this result, the melanin generation suppressing effect was dramatically enhanced in the topical composition (Examples 1 and 2) containing the cherry tree leaf extract in addition to the ascorbic acid 2-glucoside, the *Magnolia obovata* extract, and the prune extract, as compared with the melanin production suppressing effect by the topical composition (Comparative Example 1) containing the ascorbic acid 2-glucoside, the *Magnolia obovata* extract, and the prune extract. The effect of improving the melanin generation suppressing effect obtained by using a topical composition containing only 0.002% by weight of the cherry tree leaf extract in terms of dry weight (Example 1) was so excellent as to be close to the effect of arbutin (Reference Example 2: positive control; PC) known to have a high whitening effect. Besides, the effect obtained by using the topical composition containing 0.01% by weight of the cherry tree leaf extract in terms of dry weight (Example 2) was so excellent as to outperform arbutin. On the other hand, in the topical compositions (Comparative Example 2 and Comparative Example 3) containing the *Paeonia suffruticosa* extract known as an extract having an anti-inflammatory action similar to the cherry tree leaf extract in addition to ascorbic acid 2-glucoside, the *Magnolia obovata* extract, and the prune extract, enhancement of the melanin generation suppressing effect was not observed at all.

[0070]

[Table 1]

	Ref. Ex. 1 (NC)	Ref. Ex. 2 (PC)	Comp. Ex. 1	Comp. Ex. 2	Comp. Ex. 3	Ex. 1	Ex. 2
L-ascorbic acid 2-glucoside	-	-	2	2	2	2	2
Extract of Magnolia obovata	-	-	0.7 (0.00123)	0.7 (0.00123)	0.7 (0.00123)	0.7 (0.00123)	0.7 (0.00123)
Prune extract	-	-	0.01 (0.00078)	0.01 (0.00078)	0.01 (0.00078)	0.01 (0.00078)	0.01 (0.00078)
Cherry tree leaf extract	-	-	-	-	-	0.1 (0.002)	0.5 (0.01)
Paeonia suffruticosa extract	-	-	-	0.1 (0.0009)	0.5 (0.0045)	-	-
Arbutin	-	0.5	-	-	-	-	-
Purified water	Residue	Residue	Residue	Residue	Residue	Residue	Residue
Total	100	100	100	100	100	100	100
Melanin generation ratio	100	83.7	95.6	106.1	104.3	84.8	67.4

In the table, the unit of the numeric values indicating respective contents of the components is % by weight.
The numeric values in the brackets indicate values in terms of dry weight, and the unit thereof is % by weight.

[0071]

Test Example 2: Evaluation of melanin generation suppressing effect (in vivo)

A cream having a composition described in Table 2 was prepared. To senile plaques on cheeks of 17 women, the cream thus prepared was applied twice a day for 6 weeks. Melanin values of the senile plaques before and after the application were measured using a Mexameter (MX18).

[0072]

[Table 2]

	Ex. 3
L-ascorbic acid 2-glucoside	2
Extract of Magnolia obovata	0.7 (0.00123)
Prune extract	0.01 (0.00078)
Cherry tree leaf extract	0.5 (0.01)
Arbutin	3
Glycerol monostearate	2
Beewax	3
Stearic acid	2
Behenyl alcohol	1
Triethylhexanoin	10
Dimethyl polysiloxane	1
Disodium N-stearoyl glutamate	0.2
1,3-butylene glycol	3
Glycerol	3
Methylparaben	0.2
Phenoxyethanol	0.2
Sodium hyaluronate	0.01
EDTA-2Na	0.05
Potassium hydroxide	Appropriate amount
Purified water	Residue
Total	100

In the table, the unit of the numeric values indicating respective contents of the components is % by weight.
The numeric values in the brackets indicate values in terms of dry weight, and the unit thereof is % by weight.

[0073]

The results are shown in Fig. 1 (matched t-test, *** indicates $p < 0.001$). As shown in Fig. 1, the melanin value significantly decreased from before the application (initial) to after the application (6 weeks after).

[0074]

Formulation examples

Creams, emulsions, and lotions formulated as shown in Tables 3 to 5 were

prepared. In any of the formulations, the melanin generation suppressing effect was improved.

[0075]

[Table 3]

Cream

	Formulation Ex. 1	Formulation Ex. 2	Formulation Ex. 3	Formulation Ex. 4
L-ascorbic acid 2-glucoside	2	2	2	2
Extract of Magnolia obovata	0.7 (0.00123)	0.7 (0.00123)	0.7 (0.00123)	0.7 (0.00123)
Prune extract	0.01 (0.00078)	0.01 (0.00078)	0.01 (0.00078)	0.01 (0.00078)
Cherry tree leaf extract	0.01 (0.0002)	0.05 (0.001)	0.1 (0.002)	0.5 (0.01)
Glyceryl stearate (SE)	2	2	2	2
Beewax	3	3	3	3
Stearic acid	2	2	2	2
Behenyl alcohol	1	1	1	1
Triethylhexanoin	10	10	10	10
Dimethyl polysiloxane	1	1	1	1
Stearyl glycyrrhetinate	0.1	0.1	0.1	0.1
Tocopherol acetate	0.2	0.2	0.2	0.2
Sodium stearyl glutamate	0.2	0.2	0.2	0.2
1,3-butylene glycol	3	3	3	3
Glycerol	3	3	3	3
Methylparaben	0.2	0.2	0.2	0.2
Phenoxyethanol	0.2	0.2	0.2	0.2
Sodium hyaluronate	0.01	0.01	0.01	0.01
EDTA-2Na	0.05	0.05	0.05	0.05
Potassium hydroxide	Appropriate amount	Appropriate amount	Appropriate amount	Appropriate amount
Purified water	Residue	Residue	Residue	Residue
Total	100	100	100	100

In the table, the unit of the numeric values indicating respective contents of the components is % by weight.
The numeric values in the brackets indicate values in terms of dry weight, and the unit thereof is % by weight.

[0076]

[Table 4]

Emulsion

	Formulation Ex. 5	Formulation Ex. 6	Formulation Ex. 7	Formulation Ex. 8
L-ascorbic acid 2-glucoside	2	2	2	2
Extract of Magnolia obovata	0.7 (0.00123)	0.7 (0.00123)	0.7 (0.00123)	0.7 (0.00123)
Prune extract	0.01 (0.00078)	0.01 (0.00078)	0.01 (0.00078)	0.01 (0.00078)
Cherry tree leaf extract	0.01 (0.0002)	0.05 (0.001)	0.1 (0.002)	0.5 (0.01)
Dipotassium glycyrrhizinate	0.1	0.1	0.1	0.1
Cetyl 2-ethyl hexanoate	3	3	3	3
Tri(caprylate/caprate) glyceryl	2	2	2	2
Behenyl alcohol	1	1	1	1
Dimethyl polysiloxane	1	1	1	1
Sodium stearoyl glutamate	0.2	0.2	0.2	0.2
Carboxy vinyl polymer	0.3	0.3	0.3	0.3
1,3-butylene glycol	3	3	3	3
Glycerol	3	3	3	3
Methylparaben	0.2	0.2	0.2	0.2
Phenoxyethanol	0.2	0.2	0.2	0.2
Sodium hyaluronate	0.01	0.01	0.01	0.01
EDTA-2Na	0.05	0.05	0.05	0.05
Potassium hydroxide	Appropriate amount	Appropriate amount	Appropriate amount	Appropriate amount
Purified water	Residue	Residue	Residue	Residue
Total	100	100	100	100

In the table, the unit of the numeric values indicating respective contents of the components is % by weight.
The numeric values in the brackets indicate values in terms of dry weight, and the unit thereof is % by weight.

[0077]

[Table 5]

Lotion

	Formulation Ex. 9	Formulation Ex. 10	Formulation Ex. 11	Formulation Ex. 12
L-ascorbic acid 2-glucoside	2	2	2	2
Extract of Magnolia obovata	0.7 (0.00123)	0.7 (0.00123)	0.7 (0.00123)	0.7 (0.00123)
Prune extract	0.01 (0.00078)	0.01 (0.00078)	0.01 (0.00078)	0.01 (0.00078)
Cherry tree leaf extract	0.01 (0.0002)	0.05 (0.001)	0.1 (0.002)	0.5 (0.01)
Dipotassium glycyrrhizinate	0.1	0.1	0.1	0.1
POE-hydrogenated castor oil	0.1	0.1	0.1	0.1
POE (20) sorbitan isostearate	0.1	0.1	0.1	0.1
Carboxy vinyl polymer	0.3	0.3	0.3	0.3
1,3-butylene glycol	3	3	3	3
Glycerol	3	3	3	3
Methylparaben	0.2	0.2	0.2	0.2
Phenoxyethanol	0.2	0.2	0.2	0.2
Sodium hyaluronate	0.01	0.01	0.01	0.01
EDTA-2Na	0.05	0.05	0.05	0.05
Potassium hydroxide	Appropriate amount	Appropriate amount	Appropriate amount	Appropriate amount
Purified water	Residue	Residue	Residue	Residue
Total	100	100	100	100

In the table, the unit of the numeric values indicating respective contents of the components is % by weight.
The numeric values in the brackets indicate values in terms of dry weight, and the unit thereof is % by weight.

CLAIMS

1. A topical composition comprising: a component (A) of ascorbic acid and/or a derivative thereof; a component (B) of an extract of a plant of the Magnolia genus of the Magnoliaceae family; a component (C) of a prune extract; and a component (D) of a cherry tree leaf extract.
2. The topical composition according to claim 1, wherein the component (B) is an extract of *Magnolia obovata*.
3. The topical composition according to claim 1 or 2, wherein the component (A) is ascorbic acid 2-glucoside.
4. The topical composition according to any one of claims 1 to 3, wherein a content of the component (D) is 0.00001 to 0.1% by weight in terms of dry weight.
5. The topical composition according to any one of claims 1 to 4, wherein a content of the component (D) is 0.008 to 0.1% by weight in terms of dry weight.
6. The topical composition according to any one of claims 1 to 5, wherein the topical composition is a topical composition for whitening.