



## PRODUIT DE SANTÉ NATUREL

### PRODUITS DE VARECH

La présente monographie vise à servir de guide à l'industrie pour la préparation de demandes de licence de mise en marché (DLMM) et d'étiquettes dans le but d'obtenir une autorisation de mise en marché d'un produit de santé naturel. Elle ne vise pas à être une étude approfondie des ingrédients médicinaux.

#### Nota

- ▶ Les parenthèses contiennent des éléments d'information additionnels (facultatifs) qui peuvent être inclus dans la DLMM ou sur l'étiquette du produit à la discrétion du demandeur.
- ▶ La barre oblique (/) indique que les termes et/ou énoncés sont synonymes. Le demandeur peut utiliser n'importe lequel des termes ou énoncés indiqués.

#### Date

25 septembre 2018

#### Nom(s) propre(s), Nom(s) commun(s), Matière(s) d'origine

Tableau 1. Nom(s) propre(s), Nom(s) commun(s), Matière(s) d'origine

Nom(s) propre(s)	Nom(s) commun(s)	Matière(s) d'origine	
		Nom(s) propre(s)	Partie(s)
<i>Ascophyllum nodosum</i>	<ul style="list-style-type: none"> <li>▶ Knuppetang</li> <li>▶ Varech norvégien</li> </ul>	<i>Ascophyllum nodosum</i>	<ul style="list-style-type: none"> <li>▶ Thalle</li> <li>▶ Entier</li> </ul>
<i>Fucus vesiculosus</i>	<ul style="list-style-type: none"> <li>▶ Chone marin</li> <li>▶ Kelpware</li> <li>▶ Varech noueux</li> <li>▶ Varech vésiculeux</li> </ul>	<i>Fucus vesiculosus</i>	<ul style="list-style-type: none"> <li>▶ Thalle</li> <li>▶ Entier</li> </ul>
<i>Laminaria digitata</i>	<ul style="list-style-type: none"> <li>▶ Fouet de sorcier</li> <li>▶ Laminaire digitée</li> <li>▶ Varech</li> </ul>	<i>Laminaria digitata</i>	<ul style="list-style-type: none"> <li>▶ Thalle</li> <li>▶ Entier</li> </ul>
<i>Laminaria japonica</i>	<ul style="list-style-type: none"> <li>▶ Enchevêtrement de mer</li> <li>▶ Hai dai</li> <li>▶ Makombu</li> <li>▶ Varech japonais</li> </ul>	<i>Laminaria japonica</i>	<ul style="list-style-type: none"> <li>▶ Thalle</li> <li>▶ Entier</li> </ul>

Références: Nom propre: Guiry et Guiry 2018a,b; Noms communs: TGA 2016, The Biodiversity Committee of Chinese Academy of Science 2013; Matières d'origine: Guiry et Guiry 2018a,b.

## Voie d'administration

Orale

## Forme(s) posologique(s)

Cette monographie exclut les aliments et les formes posologiques semblables aux aliments tel qu'indiqué dans le document de référence Compendium des monographies.

Les formes posologiques acceptables pour les catégories d'âge listées dans cette monographie et pour la voie d'administration spécifiée sont indiquées dans le document de référence Compendium des monographies.

## Usage(s) ou fin(s)

### *Tous les produits*

- ▶ Source d'antioxydants/Fournit des antioxydants (Murphy et al. 2013; FCÉN 2012; Kang et al. 2012; Veena et al. 2008; Veena et al. 2007; Zhang et al. 2007; Jin et al. 2004).
- ▶ Source d'antioxydants/Fournit des antioxydants qui aident à combattre/à protéger (les cellules) contre/à réduire (les effets oxydatifs des/les dommages oxydatifs causés par/les dommages cellulaires causés par) les radicaux libres (Murphy et al. 2013; FCÉN 2012; Kang et al. 2012; Veena et al. 2008; Veena et al. 2007; Zhang et al. 2007; Jin et al. 2004).

### *Produits fournissant 0,8 g ou plus de Fucus vesiculosus par jour*

- ▶ Utilisé traditionnellement en phytothérapie comme un altératif du système glandulaire (Hoffman 2003; Duke 2002; Grieve 1931a,b; Felton et Lloyd 1898).
- ▶ Utilisé en phytothérapie pour soutenir le fonctionnement normal de la glande thyroïde (Bradley 1992; Grieve 1931a,b; Ellingwood 1919).

### *Produits normalisés à l'iode*

Selon la monographie des Suppléments de multivitamines/minéraux de la Direction des produits de santé naturels et sans ordonnance (DPSNSO).

## Nota

Les allégations pour les usages traditionnels doivent inclure le terme « phytothérapie », « médecine traditionnelle chinoise » ou « Ayurvéda ».



## Dose(s)

### Sous-population(s)

Adultes 18 ans et plus

### Quantité(s)

*Antioxydants*

Méthodes de préparation : Sec, poudre, extraits éthanoliques non normalisés (teinture, extraits fluides)

Ne pas dépasser 1 gramme de varech par jour (Barnes et al. 2007; Mills et Bone 2005; Kolb et al. 2004; Duke 2002; BHP 1996; Bradley 1992)

*Fucus vesiculosus* : altératif, fonctionnement normal de la glande thyroïde

0,8 à 1 gramme de *Fucus vesiculosus* par jour (Mills et Bone 2005; Bradley 1992).

*Allégations relatives au iode (monographie des Suppléments de multivitamines/minéraux)*

Méthodes de préparation : Préparations normalisées

Les ingrédients médicinaux doivent fournir la quantité d'iode minimale indiquée dans la monographie des Suppléments de multivitamines/minéraux de la DPSNSO. L'iode doit être indiqué sur le formulaire de demande de licence de mise en marché comme composante d'activité.

### Nota

La quantité totale d'iode fournie par le produit ne doit pas dépasser 800 microgrammes d'iode par jour (IOM 2006).

## Mode(s) d'emploi

Énoncé non requis.

## Durée(s) d'utilisation

Énoncé non requis.



## Mention(s) de risque

### Précaution(s) et mise(s) en garde

*Tous les produits*

- ▶ Consulter un praticien de soins de santé/fournisseur de soins de santé/professionnel de la santé /docteur/médecin avant d'en faire l'usage si vous prenez des anticoagulants (Gardner et McGuffin 2013; Ren et al. 2013; Zhao et al. 2012; Brinker 2010; Gruenwald et al. 2007; Duke 2002).
- ▶ Consulter un praticien de soins de la santé/fournisseur de soins de santé/professionnel de la santé/docteur/médecin avant d'en faire l'usage si vous êtes enceinte ou si vous allaitez (Brinker 2010; Barnes 2002).

### Contre-indications(s)

Énoncé non requis.

### Réaction(s) indésirable(s) connue(s)

Énoncé non requis.

## Ingrédients non médicinaux

Doivent être choisis parmi ceux de la version actuelle de la Base de données d'ingrédients de produits de santé naturels (BDIPSN) et respecter les restrictions mentionnées dans cette base de données.

## Conditions d'entreposage

Énoncé non requis.

## Spécifications

- ▶ Les spécifications du produit fini doivent être établies conformément aux exigences décrites dans le Guide de référence sur la qualité des produits de santé naturels de la Direction des produits de santé naturels et sans ordonnance (DPSNSO).
- ▶ L'ingrédient médicinal doit être conforme aux exigences mentionnées dans la BDIPSN.



## Références citées

Barnes J..Herbal Medicines. A guide for healthcare professionals. 2nd edition. London (UK): The Pharmaceutical Press; 2002

Barnes J, Anderson LA, Philipson JD. Herbal Medicines.3<sup>rd</sup> edition. London (GB): The Pharmaceutical Press; 2007.

BHP 1996: British Herbal Pharmacopoeia. Bournemouth (GB): British Herbal Medicine Association; 1996.

Bradley P. British Herbal Compendium Vol 1; Companion to Volume 1 of the British Herbal Pharmacopoeia; 1992.

Brinker F. Herbal Contraindications and Drug Interactions: Plus Herbal Adjuncts with Medicines, expanded 4th edition. Sandy (OR): Eclectic Medical Publications; 2010.

Duke JA, Bogenschutz-Godwin MJ, duCellier J, Duke PK. Handbook of Medicinal Herbs.2<sup>nd</sup> edition. Boca Raton (FL): CRC Press; 2002.

Ellingwood F. American Materia Medica, Therapeutics and Pharmacognosy. Sandy (OR): Eclectic Medical Publications; 1998 [Reprint of 1919 original].

FCÉN 2012: Le Fichier canadien sur les éléments nutritifs (FCÉN). Nutrition et saine alimentation, Aliments et nutrition, Santé Canada [Date de modification 26 avril 2012; Consulté le 20 juillet 2018]. Disponible à : <https://aliments-nutrition.canada.ca/cnf-fce/index-fra.jsp>

Felter HW, Lloyd JU. King's American Dispensatory. Volume 1, 18<sup>th</sup> edition. Sandy (OR): Eclectic Medical Publications; 1983 [Reprint of 1898 original].

Gardner Z, McGuffin M, editors. American Herbal Products Association's Botanical Safety Handbook. Second Edition. Boca Raton (FL): Taylor and Francis Group; 2013.

Grieve M. A Modern Herbal. Volume 1. New York (NY): Dover Publications; 1971 [Reprint of 1931a. Harcourt, Brace & Company publication].

Grieve M. A Modern Herbal. Volume 2. New York (NY): Dover Publications; 1971 [Reprint of 1931b. Harcourt, Brace & Company publication].

Gruenwald J, Brendler T, Jaenicke C. PDR for Herbal Medicines. Fourth Edition. Montvale (NJ): Thomson Healthcare Inc.; 2007.

Guiry MD, Guiry GM. 2018a. *Fucus vesiculosus* Linnaeus. AlgaeBase – World-wide electronic publication. National University of Ireland, Galway. [Consulté le 20 juillet 2018]. Disponible à : <http://www.algaebase.org>.

Guiry MD, Guiry GM. 2018b. *Laminaria japonica* Areschoug. AlgaeBase – World-wide electronic publication. National University of Ireland, Galway. [Consulté le 20 juillet 2018]. Disponible à : <http://www.algaebase.org>.

Hoffman D. *Medical Herbalism: The Science and Practice of Herbal Medicine*. Rochester (VT): Healing Arts Press; 2003.

IOM 2006: Institute of Medicine. Otten JJ, Pitzel Hellwig J, Meyers LD, editors. *Institute of Medicine. Dietary Reference Intakes: The Essential Guide to Nutrient Requirements*. Washington (DC): National Academies Press; 2006.

Jin DQ, Li G, Kim JS, Yong CS, Kim JA, Huh K. Preventive Effects of *Laminaria japonica* Aqueous Extract on the Oxidative Stress and Xanthine Oxidase Activity in Streptozotocin-induced diabetic rat liver. *Biological and Pharmaceutical Bulletin* 2004;27(7):1037-1040.


Kang YM, Lee BJ, Kim JI, Nam BH, Cha JY, Kim YM, Ahn CB, Choi JS, Choi IS, Je JY. Antioxidant effects of fermented sea tangle (*Laminaria japonica*) by *Lactobacillus brevis* BJ20 in individuals with high level of gamma-GT: A randomized double-blind and placebo controlled clinical study. *Food and Chemical Toxicology* 2012;50:1166-1169.

Kolb N, Vallorani L, Milanovic N, Stocchi. Evaluation of marine algae Wakame (*Undaria pinnatifida*) and Kombu (*Laminaria digitata japonica*) as food supplements. *Food Technology and Biotechnology* 2004;42:57-61.

Mills S, Bone K. *The Essential Guide to Herbal Safety*. St. Louis (MO): Elsevier Churchill Livingstone; 2005.

Murphy P, Dal Bello F, O'Doherty J, Arendt EK, Sweeney T, Coffey A. The effects of liquid versus spray-dried *Laminaria digitata* extract on selected bacterial groups in the piglet gastrointestinal tract (GIT) microbiota. *Anaerobe* 2013;21:1-8.

Ren R, Azuma Y, Ojima T, Hashimoto T, Mizuno M, Nishitani Y, Yoshida M, Azuma T, Kanazawa K. Modulation of platelet aggregation-related eicosanoid production by dietary Ffucoidan from brown alga *Laminaria japonica* in human subjects. *British Journal of Nutrition* 2013;110:880-890.

TGA 1999: Australian Therapeutic Goods Administration  TGA Approved Terminology for Medicines, Section 3 - Herbal Substances. July 1999. Symonston (AU): Australian Government



Department of Health and Ageing, Therapeutic Goods Administration. [Consulté le 20 juillet 2018]. Disponible à : <https://www.tga.gov.au/sites/default/files/tga-approved-terminology-medicines.pdf>

The Biodiversity Committee of Chinese Academy of Science 2013. Catalogue of Life China, 2013 Annual Checklist. [Consulté le 20 juillet 2018]. Disponible à : <https://www.gbif.org/dataset/3772da2f-daa1-4f07-a438-15a881a2142c>

Veena CK, Josephine A, Preetha SP, Varalakshmi P. Effect of sulphated polysaccharides on erythrocyte changes due to oxidative and nitrosative stress in experimental hyperoxaluria. *Human & Experimental Toxicology* 2007;26:923-932.

Veena CK, Josephine A, Preetha SP, Rajesh NG, Varalakshmi P. Mitochondrial dysfunction in an animal model of hyperoxaluria: a prophylactic approach with fucoidan. *European Journal of Pharmacology* 2008;579(1-3):330-336.

Zhang J, Tiller C, Shen J, Wang C, Girouard GS, Dennis D, Barrow CJ, Miao M, Ewart HS. Antidiabetic properties of polysaccharide- and polyphenolic-enriched fractions from the brown seaweed *Ascophyllum nodosum*. *Canadian Journal of Physiology and Pharmacology* 2007;85(11):1116-1123.

Zhao X, Dong S, Wang J, Li F, Chen A, Li B. A comparative study of antithrombotic and antiplatelet activities of different fucoidans from *Laminaria japonica*. *Thrombosis Research* 2012;129(6):771-778.

### Références consultées

Abbott IA, Hollenberg GJ. *Marine Algae of California*. Stanford (CA): Stanford University Press; 1976.

Abidov M, Ramazanov Z, Seifulla R, Grachev S. The effects of Xanthigen in the weight management of obese premenopausal women with non-alcoholic fatty liver disease and normal liver fat. *Diabetes Obesity and Metabolism* 2010;12(1):72-81.

Arbaizar B, Llorca J. *Fucus vesiculosus* induced hyperthyroidism in a patient undergoing concomitant treatment with lithium. *Actas Espanolas de Psiquiatria* 2011;39(6):301-403. [Article in Spanish].

Atlas RO, Lemus J, Reed J 3<sup>rd</sup>, Atkins D, Alger LS. Second trimester abortion using prostaglandin E2 suppositories with or without intracervical *Laminaria japonica*: A randomized study. *Obstetrics & Gynecology* 1998;92(3):398-402.



- Audibert L, Fauchon M, Blan N, Hauchard D, Gall EA. Phenolic compounds in the brown seaweed *Ascophyllum nodosum*: distribution and radical-scavenging activities. *Phytochemical Analysis* 2010;21(5):399-405.
- Becker G, Osterloh K, Schäfer S, Forth W, Paskins-Hurlburt AJ, Tanaka G, Skoryna Sc. Influence of fucoidan on the intestinal absorption of iron, cobalt, manganese and zinc in rats. *Digestion* 1981;21(10):6-12.
- Bensky D, Clavey, Stöger E, Gamble A. *Chinese Herbal Medicine: Materia Medica*. 3<sup>rd</sup> edition. Seattle (WA): Eastland Press, Incorporated; 2004.
- Birkett DA, Maggs C, Dring MJ. An overview of dynamic and sensitivity characteristics for conservation management of marine SACs. *Infralittoral Reef Biotopes with Kelp Species* 1998;7:1-174.
- Bisby F, Roskov Y, Culham A, Orrell T, Nicolson D, Paglinawan L, Bailly N, Kirk P, Bourgoin T, Baillargeon G, Hernandez F, editors. *Species 2000 & ITIS Catalogue of Life*, 20th November 2012 [Internet]. Reading (GB): Species 2000; 2012. [Consulté le 20 Février 2015]. Disponible à : [www.catalogueoflife.org](http://www.catalogueoflife.org).
- Bisset NG, Wichtl M, editors. *Herbal Drugs and Phytopharmaceuticals: A Handbook for Practice on a Scientific Basis*. 2<sup>nd</sup> edition. Stuttgart (DE): Medpharm Scientific Publishers; 2001.
- Blanc N, Hauchard D, Audibert L, Gall EA. Radical-scavenging capacity of phenol fractions in the brown seaweed *Ascophyllum nodosum*: an electrochemical approach. *Talanta* 2011;84(2):513-518.
- Bleichrodt N, Shrestha RM, West CE, Hautvast JG, van de Vijver FJ, Born MP. The Benefits of adequate iodine intake. *Nutrition Reviews* 1996;54 (4):S72-78.
- Blumenthal M, editor. *The Complete German Commission E Monographs: Therapeutic Guide to Herbal Medicines*. Austin (TX): American Botanical Council in cooperation with Integrative Medicine Communications; 1998.
- Bone K. *A Clinical Guide to Blending Liquid Herbs: Herbal Formulations for the Individual Patient*. St. Louis (MI): Churchill Livingstone; 2003.
- BPC 1934: *The British Pharmaceutical Codex: An imperial dispensatory for the use of medical practitioners and pharmacists*. London (GB): The Pharmaceutical Press; 1934.
- Chevolot L, Foucault A, Chaubet F, Kervarec N, Singuin C, Fisher AM, Boisson-Vidal C. Further data on the structure of brown seaweed fucans: relationships with anticoagulant activity. *Carbohydrate Research* 1999;319(1-4):154-165.





Church FC, Meade JB, Treanor RE, Whinna HC. Antithrombin activity of fucoidan. The interaction of fucoidan with heparin cofactor II, antithrombin III, and thrombin. *The Journal of Biological Chemistry* 1989;264(6):3618-3623.

Combet E, Ma ZF, Cousins F, Thompson B, Lean ME. Low-level seaweed supplementation improves iodine status in iodine-insufficient women. *British Journal of Nutrition* 2014;112(5):753-761.

Cumashi, A, Ushakova NA, Preobrazhenskaya ME, D'Incecco A, Piccoli A, Totani L, Tinari N, Morozevich A comparative study of the anti-inflammatory, anticoagulant, antiangiogenic, and antiadhesive activities of nine different fucoidans from brown seaweeds. *Glycobiology* 2007;17(5):541-552.

De Smet PA, Stricker BH, Wilderink F, Wiersinga WM. Hyperthyroidism during treatment with kelp tablets. *Ned Tijdschr Geneeskd* 1990;134(21):1058-1059. [Article in Dutch].

D'Orazio N, Gemello E, Gammone MA, de Girolamo M, Ficoneri C, Riccioni G. Fucoxantin: A Treasure from the Sea. *Marine Drug* 2012;10(3):604-616.

Duke JA. *Handbook of phytochemical constituents of GRAS herbs and other economic plants*. Boca Raton (FL): CRC Press; 2001.

Durig J, Bruhn T, Zurborn KH, *et al* Anticoagulant fucoidan fractions from *Fucus vesiculosus* induce platelet activation in vitro. *Thrombosis Research* 1997;85:479-491.

Dutot M, Fagon R, Hemon M, Rat P. Antioxidant, Anti-inflammatory, and Anti-senescence Activities of a Phlorotannin-Rich Natural Extract from Brown Seaweed *Ascophyllum nodosum*. *Applied Biochemistry and Biotechnology* 2012;167:2234-2240.

Facciola S. *Cornucopia II: A source book of edible plants*. Vista (CA): Kampong Publications; 1998.

Fleming T. editor. *PDR for Herbal Medicine*. 2nd edition. New Jersey (US): Medical Economics Company; 2000.

Garber DW, Henkin Y, Osterlund LC, Woolley TW, Segrest JP. Thyroid function and other clinical chemistry parameters in subjects eating iodine-enriched eggs. *Food and Chemical Toxicology* 1993;31(4):247-51.

Gehrmann *et al* *Medicinal Herbs. A compendium*. Binghamton (NY): The Haworth Herbal Press; 2005.



Gower RH, Toraya J, Miller JM Jr. Laminaria for preinduction cervical ripening. *Obstetrics & Gynecology* 1982;60(5):617-619.

Ha AW, Kim WK. The effect of fucoxanthin rich powder on the lipid metabolism in rats with a high fat diet. *Nutrition Research and Practice* 2013;7(4):287-293.

Hall AC, Fairclough AC, Mahadevan K, Paxman JR. *Ascophyllum nodosum* enriched bread reduces subsequent energy intake with no effect on post-prandial glucose and cholesterol in healthy, overweight males. A pilot study. *Appetite* 2012;58(1):379-386.

Hoffmann D. *The Complete Illustrated Holistic Herbal*. Boston (MA): Element Books Ltd.; 1996.

Hu X, Li Y, Li C, Fu Y, Cai F, Chen Q, Li D. Combination of fucoxanthin and conjugated linoleic acid attenuates body weight gain and improves lipid metabolism in high-fat diet induced obese rats. *Archives of Biochemistry and Biophysics* 2012;519(1):59-65.

IOM 2001: Institute of Medicine. Panel on Micronutrients, Subcommittees on Upper Reference Levels of Nutrients and Interpretation and Uses of Dietary Reference Intakes, and the Standing Committee on the Scientific Evaluation of Dietary Reference Intakes, Food and Nutrition Board, Institute of Medicine. *Dietary Reference Intakes for Vitamin A, Vitamin K, Arsenic, Boron, Chromium, Copper, Iodine, Iron, Manganese, Molybdenum, Nickel, Silicon, Vanadium, and Zinc*. Washington (DC): National Academies Press; 2001.

IOM 2002: Institute of Medicine of the National Academies. *Dietary Reference Intakes for Energy, Carbohydrate, Fiber, Fat, Fatty Acids, Cholesterol, Protein, and Amino Acids*. Food and Nutrition Board, Institute of Medicine. Washington (DC): National Academy Press; 2002.

IOM 2003: Institute of Medicine. Committee on Food Chemicals Codex, Food and Nutrition Board, Institute of Medicine. *Food Chemicals Codex*, 5th edition. Washington (DC): National Academies Press; 2003.

Irhimeh, M. R., Fitton, J. H., Lowenthal, R. M. Pilot clinical study to evaluate the anticoagulant activity of fucoxanthin. *Blood Coagulation & Fibrinolysis* 2009;20(7):607-610.

Jeon SM, Kim HJ, Woo MN, Lee MK, Shin YC, Park YB, Choi MS. Fucoxanthin-rich seaweed extract suppresses body weight gain and improves lipid metabolism in high-fat-fed C57BL/6J mice. *Biotechnology Journal* 2010;5(9):961-969.

Kang KS, Kim ID, Kwon RH, Lee JY, Kang JS, Ha BJ. The effects of fucoxanthin extracts on CCI(4)-induced liver injury. *Archives of Pharmacal Research* 2008;31(5):622-627.



- Kazzi GM, Bottoms SF, Rosen MG. Efficacy and safety of *Laminaria digitata* for preinduction ripening of the cervix. *Obstetrics & Gynecology* 1982;60(4):440-443.
- Kim SH, Chang YH, Kim WK, Kim YK, Cho SH, Kim YY, Min KU. Two cases of anaphylaxis after laminaria insertion. *Journal of Korean Medical Science* 2003;18(6):886-888.
- Kim KT, Rioux LE, Turgeon SL. Alpha-amylase and alpha-glucosidase inhibition is differentially modulated by fucoidan obtained from *Fucus vesiculosus* and *Ascophyllum nodosum*. *Phytochemistry* 2014;98:27-33.
- Konno N, Makita H, Yuri K, Iizuka N, Kawasaki K. Association between dietary iodine intake and prevalence of subclinical hypothyroidism in the coastal regions of Japan. *Journal of Clinical Endocrinology Metabolism* 1994;78(2):393-397.
- Le Tutour B., Benslimane F, Gouleau MP, Gouygou JP, Saadan B, Quemeneur F. Antioxidant and pro-oxidant activities of the brown algae, *Laminaria digitata*, *Himantalia elongata*, *Fucus vesiculosus*, *Fucus serratus* and *Ascophyllum nodosum*. *Journal of Applied Phycology* 1998;10:121-129.
- Lee BJ, Senevirathne M, Kim JS, Kim YM, Lee MS, Jeong MH, Kang YM, Kim JI, Nam BH, Ahn CB, Je JY. Protective effect of fermented sea tangle against ethanol and carbon tetrachloride-induced hepatic damage in Sprague-Dawley rats. *Food and Chemical Toxicology* 2010;48(4):1123-1128.
- Leung AM, Braverman, L.E. Consequences of excess iodine. *Nature Reviews Endocrinology* 2014;10(3):136-142.
- Leung AY, Foster S. *Encyclopedia of Common Natural Ingredients Used in Food, Drugs and Cosmetics*. 2<sup>nd</sup> edition. Hoboken (NJ): John Wiley & Sons, Inc.; 2003.
- Liu C, Tseng A, Yang S. *Chinese Herbal Medicine: Modern Applications of Traditional Formulas*. Boca Raton, FL: CRC Press; 2005.
- Maeda H, Hosokawa M, Sashima T, Funayama K, Miyashita K. Effect of medium-chain triacylglycerols on anti-obesity effect of fucoxanthin. *Journal of Oleo Science* 2007;56(12):615-621.
- Maruyama H, Watanabe K, Yamamoto I. Effect of dietary kelp on lipid peroxidation and glutathione peroxidase activity in livers of rats given breast carcinogen DMBA. *Nutrition and Cancer* 1991;15(3-4):221-228.
- McGuffin M, Hobbs C, Upton R, Goldberg A, editors. *American Herbal Products Association's Botanical Safety Handbook*. Boca Raton (FL): CRC Press; 1997.



Michiels J, Skrivanova E, Missotten J, Ovyne A, Mrazek J, De Smet S, Dierick N. Intact brown seaweed (*ascophyllum nodosum*) in diets of weaned piglets: effects on performance, gut bacteria and morphology and plasma oxidative status. *Journal of Animal Physiology and Animal Nutrition* 2012;96(6):1101-1111.

Mills S, Bone K. *Principals and Practice of Phytotherapy. Modern Herbal Medicine. 2<sup>nd</sup> Edition.* Churchill Livingstone Elsevier;2003.

Miyai K, Tokushige T, Kondo M and Iodine Research Group. Suppression of Thyroid Function during Ingestion of Seaweed “Kombu” (*Laminaria japonica*) in Normal Japanese Adults. *Endocrine Journal* 2008;55(6):1103-1108.

Moro CO, Basile G. Obesity and medicinal plants. *Fitoterapia* 2000;71(1):S73-S82.

Moroney NC, O’Grady MN, O’Doherty JV, Kerry JP. Effect of a brown seaweed (*Laminaria digitata*) extract containing laminarin and fucoïdan on the quality and shelf life of fresh and cooked minced pork patties. *Meat Science* 2013;94(3):304-311

Müssig K, Thamer C, Bares R, Lipp HP, Haring HU, Gallwitz B. Case Report: Iodine-Induced Thyrotoxicosis After ingestion of Kelp Containing Tea. *Journal of General Internal Medicine* 2006;21:C11-C14.

Myers S. A combined phase I and II open label study on the effects of a seaweed extract nutrient complex on osteoarthritis. *Biologics* 2010;4:33-44.

Nagata K, Takasu N, Akamine H, Ohshiro C, Komiyama I, Murakami K, Suzawa A, Nomura T. Urinary iodine and thyroid antibodies in Okinawa, Yamagata, Hyogo and Nagano, Japan: The differences in iodine intake do not affect thyroid antibody positivity. *Endocrine Journal* 1998;45(6):797-803.

Newall CA, Anderson LA, Phillipson JD. *Herbal Medicines. A Guide For Health Care Professionals.* London: The Pharmaceutical Press; 1996.

Nishiyama S, Mikeda T, Okada T, Nakamura K, Kotani T, Hishinuma A. Transient hypothyroidism or persistent hyperthyrotropinemia in neonates born to mothers with excessive iodine intake. *Thyroid* 2004;14(12):1077-1083.

O’Neil MJ, Smith A, Heckelman PE, Budavari S, editors. *The Merck Index: An Encyclopedia of Chemicals, Drugs, and Biologicals*, 13th edition. Whitehouse Station (NJ): Merck & Co., Inc.; 2001.

Odunsi ST, Vazquez-Rogue MI, Camilleri M, Papathanasopoulos A, Clark MM, Wodrich L,



Lempke M, McKinzie S, Ryks M, Burton D, Zinsmeister AR. Effect of Alginate of Satiation, Appetite, Gastric Function and Selected Gut Satiety Hormones in Overweight and Obesity. *Obesity (Silver Spring)* 2011;18(8):1579-1584.

Paradis M-E, Couture P, Lamarche B. A randomized crossover placebo-controlled trial investigating the effect of brown seaweed (*Ascophyllum nodosum* and *Fucus vesiculosus*) on postchallenge plasma glucose and insulin levels in men and women. *Applied Physiology, Nutrition, and Metabolism* 2011;36(6):913-919.

Park PJ, Kim EK, Lee SJ, Park SY, Kang DS, Jung BM, kim KS, Je JY, Ahn CB. Protective effects against H<sub>2</sub>O<sub>2</sub>-induced damage by enzymatic hydrolysates of an edible brown seaweed, sea tangle (*laminaria japonica*). *Journal of Medicinal Foods* 2009;12(1):159-166.

Phaneuf D, Côté I, Dumas P, Ferron LA, LeBlanc A. Evaluation of the contamination of marine algae (seaweed) from the St. Lawrence River and likely to be consumed by humans. *Environmental Research Section A* 1999;80(2pt2):S175-S182.

Pizzorno Jr, Murray M. *Textbook of Natural Medicine*. Fourth edition. St. Louis (MO): Elsevier Churchill Livingstone; 2013.

PPRC 2010: *Pharmacopoeia of the People's Republic of China*. English edition 2010. Volume I. Beijing (CN): The State Pharmacopoeia Commission of the People's Republic of China; 2010.

Queiroz KC, Medeiros VP, Queiroz LS, Abreu LR, Rocha HA, Ferreira CV, Jucá MB, Aoyama H, Leite EL. Inhibition of reverse transcriptase activity of HIV by polysaccharides of brown algae. *Biomedicine & Pharmacotherapy* 2008;62(5):303-307.

Roy M-C, Anguenot R, Fillion C, Beaulieu M, Bérubé J, Richard D. Effect of a commercially available algal phlorotannins extract on digestive enzymes and carbohydrate absorption in vivo. *Food Research International* 2011;44(9):3026-3029.

Royal Society of Chemistry 2001: *The Merck Index Online*. [Consulté le 20 février 2015]. Disponible à: <https://www.rsc.org/Merck-Index/>

Santé Canada 2013. Ligne directrice: Annexe A et article 3 de la Loi sur les aliments et drogues. [Consulté le 20 février 2015]. Disponible à: [http://www.hc-sc.gc.ca/dhp-mps/prodpharma/applicdemande/guide-ld/scha\\_guide\\_ld-fra.php](http://www.hc-sc.gc.ca/dhp-mps/prodpharma/applicdemande/guide-ld/scha_guide_ld-fra.php).

Santé Canada 2007. *Suppléments de multivitamines/minéraux*. [Consulté le 20 février 2015]. Disponible à: [http://webprod.hc-sc.gc.ca/nhpiddipsn/atReq.do?atid=multi\\_vitmin\\_suppl&lang=fra](http://webprod.hc-sc.gc.ca/nhpiddipsn/atReq.do?atid=multi_vitmin_suppl&lang=fra).



Santé Canada 2015. Suppléments à l'entraînement. [Consulté le 20 février 2015]. Disponible à : <http://webprod.hc-sc.gc.ca/nhp/ibdipsn/atReq.do?atid=workout.supplements.entrainement&lang=fra>.

Sherman JA. The Complete Botanical Prescriber. Third edition. Oregon(US): National College of Naturopathic Medicine; 1993.

Skenderi, G. Herbal Vade Mecum. Rutherford (NJ): Herbacy Press; 2003.

Skibola CF. The effect of *Fucus vesiculosus*, an edible brown seaweed, upon menstrual cycle length and hormonal status in three pre-menopausal women: a case report. *BMC Complementary and Alternative Medicine* 2004; 4(10):1-8.

Skibola CF, Curry JD, VandeVoort C, Conley A, Smith MT. Brown kelp modulates endocrine hormones in female sprague-dawley rats and in human luteinized granulosa cells. *The Journal of Nutrition* 2005;135(2):296-300.

Shilo S, Hirsch H.J. Iodine-induced hyperthyroidism in a patient with a normal thyroid gland. *Postgraduate Medical Journal*. 1986;62(729):661-662.

Shils ME, Olson JA, Shike M, Ross AC, Caballero B, Cousins RJ, editors. *Modern Nutrition in Health and Disease*, 10th edition. Philadelphia (PA): Lippincott Williams & Wilkins; 2006.

Suzuki N, Fujimura A, Nagai T, Mizumoto I, Itami T, Hatate H, Nozawa T, Kato N, Nomoto T, Yoda B. Antioxidative activity of animal and vegetable dietary fibers. *Biofactors* 2004;21(14):329-333.

Teas J, Pino S, Critchley A, Braverman LE. Variability of iodine content in common commercially available edible seaweeds. *Thyroid* 2004;14(10):836-841.

The Biodiversity Committee of Chinese Academy of Science 2013. *Species 2000 & ITIS Catalogue of Life, 2013 Annual Checklist*. 2013. Reading (UK): The Integrated Taxonomic Information System and Species 2000. [Consulté le 20 février 2015]. Disponible à : [http://base.sp2000.cn/colchina\\_e13/search.php](http://base.sp2000.cn/colchina_e13/search.php).

Tzanetakou IP, Doulamis IP, Korou LM, Agrogiannis G, Vlachos IS, Pantopoulou A, Mikhailidis DP, Patsouris E, Vlachos I and Perrea DN. Effects of ID-aIG TM on weight management and body fat mass in high-fat-fed rats. *Phytotherapy Research* 2012;26(5):727-733.

Wang J, Liu H, Li N, Zhang Q, Zhang H. The Protective Effect of Fucoidan in Rats with Streptozotocin-Induced Diabetic Nephropathy. *Marine Drugs* 2014;12(6):3292-3306.



Wang J, Jin W, Zhang W, Hou Y, Zhang H, Zhang Q. Hypoglycemic property of acidic polysaccharide extracted from *Saccharina japonica* and its potential mechanism. *Carbohydrate Polymers* 2013;95(1):143-147.

Wichtl M, editor. *Herbal Drugs and Phytopharmaceuticals: A Handbook for Practice on a Scientific Basis*, Third edition. Stuttgart (D): Medpharm GmbH Scientific Publishers; 2004.

Williamson E. *Potter's Herbal Cyclopaedia*. Trowbridge (GB): C.W Daniel Company Limited; 2003.

Wren RC. *Potter's Cyclopedia of Botanical Drugs and Preparations*. London (GB): Potter and Clark; 1907.

Zaragoza MC, López D, P Sáiz M, Poquet M, Pérez J, Puig-Parellada P, Màrmol F, Simonetti P, Gardana C, Lerat Y, Burtin P, Inisan C, Rousseau I, Besnard M, Mitjavila MT. Toxicity and antioxidant activity in vitro and in vivo of two *Fucus vesiculosus* extracts. *Journal of Agricultural and Food Chemistry* 2008;56(17):7773-7780.