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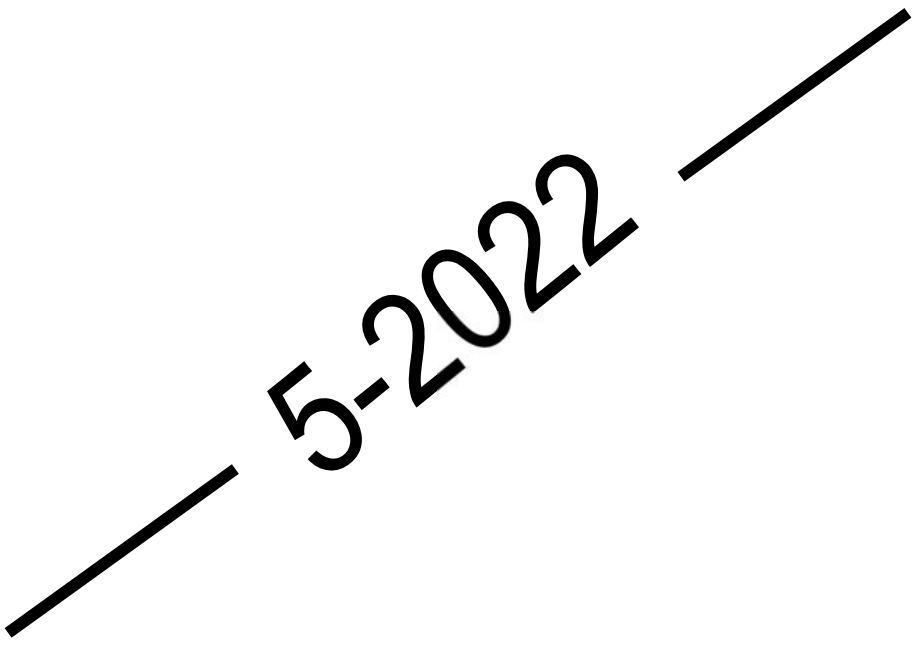

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KARAM SHARBATINING ANTIOKSIDANTLIK XUSUSIYATLARI

АНТИОКСИДАНТНЫЕ СВОЙСТВА КАПУСТНОГО СОКА

ANTIOXIDANT PROPERTIES OF CABBAGE JUICE

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Annotatsiya

Yangi uzilgan karam sharbati inson salomatligi uchun juda ham foydali, uning tarkibida tanamiz tomonidan oson so‘riladigan ko‘plab oziq moddalar mavjud, xalq tabobatida turli kasalliklarga qarshi ishlatiladi. Ma’lumki, shu kungacha o‘simliklar ekstraktlarining antioksidantlik faolligini o‘rganishda olimlar turli xil metodlarni qo‘llagan.

Mazkur maqolada karam sharbatining antioksidantlik xususiyatlari haqida ma’lumotlar keltirib o‘tilgan.

Аннотация

Сок свеженарезанной капусты очень полезен для здоровья человека, в нем содержится много полезных веществ, легко усваиваемых нашим организмом, его применяют в народной медицине против различных заболеваний. Известно, что ученые применяли различные методы для изучения антиоксидантной активности растительных экстрактов.

В данной статье представлена информация об антиоксидантных свойствах капустного сока.

Abstract

Freshly cut cabbage juice is very useful for human health, it contains many useful substances that are easily absorbed by our body, it is used in traditional medicine against various diseases. It is known that scientists have applied various methods to study the antioxidant activity of plant extracts.

This article provides information about the antioxidant properties of cabbage juice.

Kalit so‘zlar: *oziq-ovqat, karam sharbati, tog‘ asali, yallig‘lanish, antioksidant, kasalliklar, meva, sabzavot.*

Ключевые слова: *продукты питания, капустный сок, горный мед, воспаление, антиоксидант, заболевания, фрукты, овощи.*

Key words: *food, cabbage juice, mountain honey, inflammation, antioxidant, diseases, fruits, vegetables.*

INTRODUCTION: Most of the various foods consumed in daily life are rich in synthetic compounds. Because substances foreign to the human body in the product cause various diseases. Fresh fruits and vegetables saturate the body with antioxidants. To stay healthy, a person needs to consume a variety of natural antioxidants. Antioxidants can be obtained primarily from vegetables and fruits, as well as plant extracts. Antioxidants are inhibitors of oxidation processes in the human body, help neutralize free radicals and other harmful substances, and give the missing electron to an abnormal molecule, thereby protecting cells from a destructive process. According to some data, their efficiency is 99% [1,6,7].

MAIN PART: Cabbage leaves contain sugars, organic acids, vitamins (C, P, B, B_2, PP, K, E) and carotene, pantothenic and folic acids, oil, enzymes, phytoncides, potassium, calcium, iodine, manganese, iron and other elements. there are salts. Cabbage is rich in astringents. Cabbage in the evening there is more vitamin C than in the morning. Cabbage contains more glucose than oranges, lemons and apples, and more fructose than carrots, onions, lemons and potatoes. Vinegar and lactic acids in cabbage have the ability to expel putrefactive bacteria from the body. Due to the low content of sucrose and starch, eating fresh cabbage can be included in the diet of diabetics and those aiming to lose weight [2,3].

By drinking juice from fresh cabbage, you can treat pancreatitis, stomach ulcer, cholecystitis, gastritis, excessive gastric juice, cystitis and chronic pyelonephritis, treat nervousness, atherosclerosis of vessels, remove excess weight, various swellings, freckles on the face, jaundice, constipation. , it is recommended to drink cabbage juice in case of hemorrhoids, gastritis, low gastric juice, infertility, dysbacteriosis and feeling of constant fatigue [4,5].

RESULTS AND DISCUSSIONS: One of our main goals is to study the antioxidant properties of cabbage grown in the territory of Uzbekistan and use it in the treatment and prevention of colds with traditional medicine methods. It is known that scientists have used various methods to study the antioxidant activity of plant extracts. For example, E. L. Under the leadership of Gerasimova, potassium hexacyanoferrate (III) - in the method of potentiometric titration using red blood salt, E. I. Under the leadership of Ryabinina, the antioxidant activity of aqueous extracts of medicinal plants was determined using the method based on the inhibition reaction of adrenaline. These scientists proposed a new time criterion for the assessment of antioxidant activity and proved that the induction period in the analysis of autoxidation of adrenaline in the inhibition reaction is accepted as a value that determines the antioxidant activity of plant extracts [6,7].

Cabbage juice: freshly cut cabbage leaves are extracted, then juice is extracted through a blender, natural mountain honey and warm water are added to it in a ratio of 1/4, consumption of a quarter glass half an hour before meals has a positive effect on a person with a cold. Optical densities (D_1), (D_2) were measured in the EMC - 30PC - UV spectrophotometer by the method of spectrophotometric analysis of the antioxidant activities of the food additive containing 0.06 mg/ml of our studied extract. The antioxidant activity of the food supplement was determined by the inhibition of the autoxidation reaction of adrenalin in vitro and prevented the formation of the free form of oxygen and was expressed as a percentage of autoxidation (%).

Table- 1

Antioxidant activity of cabbage juice food additive (AA %) indicators

№	Analytical solutions	(D_1) Control	(D_2) Experience	(AA %)
1	Cabbage juice (5 %) 0.06 mg/ml	0.75	0.409	45.46
2	Cabbage juice (10 %) 0.06 mg/ml	0.75	0.384	48.82
3	Cabbage juice (20 %) 0.06 mg/ml	0.75	0.358	52.26
4	Cabbage juice (30 %) 0.06 mg/ml	0.75	0.315	58.10
5	Cabbage juice (50 %) 0.06 mg/ml	0.75	0.281	62.54
	Gliclazide			10,0 %
	Cversetine			37,4 %

CONCLUSION: The obtained sample shows the presence of antioxidant properties and the use of natural remedies, including cabbage juice, has a positive effect on the prevention and treatment of inflammatory diseases (colds).

REFERENCES

1.АсқаровИ. Р. “Сирлитабобат”. Тошкент. Фан ва технология нашриёти-матба уйи.

- 2021. 1010-бет. / (Askarov I. R. "Mystery Medicine". Tashkent. Science and TechnologyPublishing House.- 2021. Page 1010.)

2. Belits, Grosh, Verner; Scheberle, Peter. To‘liq davolangan tuzlangan karamning pH qiymatitaxminan 3,6; Oziq-ovqat kimyosi (4-nashr) (2009).Springer. p. 803. ISBN9783540699330.Entsiklopediya site:ewikiuz.top / (Belitz, Grosch, Werner; Scheberle,Peter.pH value of fully cured sauerkraut about 3.6; Food Chemistry (4th ed.) (2009). Springer. p.803. ISBN 9783540699330. Encyclopedia site: ewikiuz.top)

3."Hamirturushsiz yangi tuzlangan karamni iste'mol qilishning o‘n sababi"Olingan 11.06. 2015.("Ten reasons to eat fresh sauerkraut without yeast"Retrieved 11.06. 2015.)

4. Sent-Jon, Tina (2011 yil 5-iyun). "Hammayoqni karamini juda ko‘p iste'mol qila olasizmi?".Livestrong.com. Olingan 24 iyun 2013. Ensiklopediya site:ewikiuz.top / (St. John, Tina(June 5, 2011). "Can you eat too much cabbage and cabbage?".Livestrong.com.Retrieved June 24, 2013. Encyclopedia site:ewikiuz.top)

5. Moret, Sabrina; Smela, Dana; Populin, Tiziana; Konte, Lanfranko S.; va boshq. "Yangi vakonservalangan sabzavotlarning bepul biogenli omil miqdori bo‘yicha so‘rov". Oziq-ovqatkimyosi. 89 (3): 355–361. doi:10.1016 / j.foodchem.2004.02.050 Ensiklopediya site:ewikiuz.top / (Moret, Sabrina; Smela, Dana; Populin, Tiziana; Conte, Lanfranco S.; andothers. "New and A survey of the free biogenic factor content of canned vegetables". Foodchemistry. 89(3):355–361. doi:10.1016 / j.foodchem.2004.02.050 Encyclopediasite: ewikiuz.top)

6. Е. И. Рябинина, Е. Е. Зотова, Е. Н. Ветрова, Н. И. Пономарева, Т. Н. Илюшина. Новый подход в оценке антиоксидантной активности растительного сырьяприи с следовании процесса аутоокисления адреналина. ХИМИЯРАСТИТЕЛЬНОГОСЫРЬЯ. 2011. №3.С.117–121. / (E. I. Ryabinina, E. E. Zotova, E. N. Vetrova, N. I.Ponomareva, T. N. Ilyushina. New approach to assessing the antioxidant activity of plant materials in the studyautoxidation of adrenaline. CHEMISTRY OF PLANT RAW MATERIALS. 2011.No. 3.S.117–121.)

7. ГерасимоваЕ. Л, ПоповаК. Г, Потенцио метрическое определение антиоксидантной активности экстрактов растительного сырья с использованием гексацианоферратакалия –Е. 2017 г. С. 60-63. / (Gerasimova E. L, Popova K. G. Potentiometric determination of antioxidant activity of extracts of plant materials using hexacyano ferrate potassium -E. -2017, pp. 60-63.