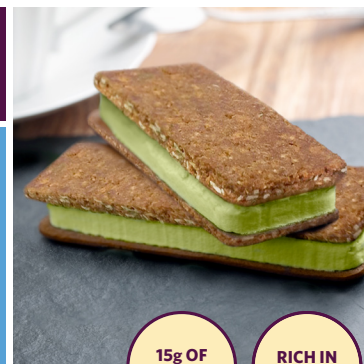


Frozen Matcha Dairy Bar

Healthy snacking gets a new twist with a high-protein, dairy-rich frozen delight. These unique frozen sandwiches feature a filling based on Greek yogurt and milk protein isolate, flavored with matcha green tea and wedged between crispy oat wafers. Containing 15g of protein from high-quality U.S. Dairy, these are perfect for breakfast on the go or for a high-protein snack—great for kids or a post-workout source of protein that helps you cool off and replenish.



15g OF PROTEIN

RICH IN CALCIUM

MARKET INSIGHTS

- Consumers perceive yogurt as a natural, healthy product and are incorporating it at more occasions, resulting in yogurt sales trending upwards. Market volume is projected to increase 11% from 2016 to 2018 globally, including retail and out of home consumption. (Innova Market Insights, "Consumer Insights: Yogurt," May 2016).
- Dairy products and ingredients provide a mild flavor that makes a good base for trendy flavors, like matcha, as the intended tastes and colors are not overwhelmed.
- Time pressures and less meal planning are impacting food rituals, as 91% of U.S. consumers report snacking multiple times a day and 8% forgo meals altogether in favor of all-day snacking.²

INGREDIENTS (OAT WAFER)

	Usage Levels (%)
Brown sugar, light	29.14
Oats, rolled	25.51
Whole wheat flour	18.73
Egg whites	16.65
Canola oil	5.27
Modified tapioca starch	2.66
Vanilla extract	1.02
Baking soda	1.02
Total	100.00

INGREDIENTS (FILLING)

	Usage Levels (%)
Milk protein isolate 85	25.73
Yogurt, plain, Greek, nonfat	17.42
Heavy whipping cream	14.40
Milk, skim	12.43
Sugar, granulated	11.42
Egg yolks	8.72
Water	6.81
Matcha powder	2.58
Carrageenan, iota	0.49
Total	100.00

INGREDIENTS (COMPLETE BAR)

	Usage Levels (%)
Oat wafer	23.57
Filling	76.43
Total	100.00

INGREDIENTS: Milk protein isolate, nonfat Greek yogurt, heavy cream, skim milk, sugar, water, pasteurized egg yolk, brown sugar, rolled oats, whole wheat flour, egg white, matcha, canola oil, modified tapioca starch, carrageenan, vanilla extract, baking soda

Contains: milk, egg, wheat

BENEFITS OF USING U.S. DAIRY

Milk protein isolate 85

- Adds dairy protein, calcium, magnesium and potassium to boost nutrition, which may reduce the need for additional fortification
- Provides protein enhancement and a complementary and clean dairy flavor without adding significant levels of lactose
- Offers emulsification, foaming and whipping, heat stability and water-binding characteristics

Greek-style nonfat yogurt

- A functional ingredient that delivers nutritional value, flavor and texture
- Contains important nutrients found in milk, such as protein and calcium

Heavy cream

- Provides creamy texture and smooth mouthfeel, and rich dairy notes that complement flavors

Skim milk

- Contributes to nutrient value with protein and calcium while enhancing viscosity

NUTRITIONAL CONTENT

U.S. Label

Nutrition Facts	
Serving Size 1 bar (70g)	
Amount Per Serving	
Calories 180	Calories from Fat 50
% Daily Value*	
Total Fat 6g	9%
Saturated Fat 2.5g	13%
Trans Fat 0g	
Cholesterol 70mg	23%
Sodium 75mg	3%
Potassium 100mg	3%
Total Carbohydrate 18g	6%
Dietary Fiber 1g	4%
Sugars 12g	
Protein 15g	30%
Vitamin A 4%	Vitamin C 0%
Calcium 35%	Iron 4%
Phosphorus 20%	Magnesium 6%
*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs:	
	Calories: 2,000 2,500
Total Fat	Less than 65g 80g
Saturated Fat	Less than 20g 25g
Cholesterol	Less than 300mg 300mg
Sodium	Less than 2,400mg 2,400mg
Potassium	3,500 mg 3,500 mg
Total Carbohydrate	300g 375g
Dietary Fiber	25g 30g
Protein	50g 65g
Calories per gram:	
	Fat 9 • Carbohydrate 4 • Protein 4

Per 100g

Calories	266kcal
Total Fat	7g
Saturated Fat	3g
Trans Fat	0g
Cholesterol	66g
Total Carbohydrates	30g
Dietary Fiber	1g
Sugars	20g
Protein	21g
Calcium	482mg
Magnesium	32mg
Phosphorus	100mg
Potassium	175mg
Sodium	133mg
Iron	1mg
Vitamin A	254IU
Vitamin C	0mg

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PREPARATION

OAT WAFER

1. Combine brown sugar, rolled oats, whole wheat flour, egg whites, canola oil, modified tapioca starch, baking soda and vanilla extract together in a large food processor.
 2. Process until all ingredients are incorporated and a ball of dough is formed. Allow dough to rest for a minimum of two hours under refrigeration.
 3. Remove from refrigeration and roll dough to a thickness of 1/8" on a silicone-lined sheet pan.
 4. Bake wafer dough at 320°F (160°C) for 20 minutes. Remove from oven and allow to cool.
 5. Cut cooked wafers into 8.23g portions and reserve for later use.
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FILLING

1. Combine water, sugar, milk, matcha powder and iota carrageenan in a medium-sized sauce pot over heat. Bring to 185°F (85°C) for a minimum of two minutes while using an immersion blender. Reduce heat and keep mixture between 140°F (60°C) and 150°F (66°C) for the remaining processing steps.
 2. Add yogurt and heavy cream to heated mixture and mix well.
 3. Using an immersion blender, slowly disperse milk protein isolate into the mixture. Remove mixture from heat and slowly add egg yolks while continuing to use high-shear mixer.
 4. Remove mixture from pot and cool rapidly to below 40°F (4°C). Allow to sit overnight.
 5. Place 1,000g of filling into a front-loading ice cream machine and spin for approximately four minutes per 1,000g batch. Reserve frozen material in a nonreactive container.
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COMPLETE BAR

1. Place 53.5g of tempered frozen yogurt filling between two pre-baked oat wafers and form into proper bar shape.
2. Package as desired.

Rely on the dynamic lineup of U.S. Dairy to meet consumer demands in global product development. The U.S. Dairy Export Council® (USDEC) offers resources on [ThinkUSAdairy.org](https://www.thinkusadairy.org), including a dairy ingredient supplier search, consumer, nutrition and product research, technical insights and prototype assistance to help develop and launch your next successful product. [@ThinkUSAdairy](https://twitter.com/ThinkUSAdairy) www.linkedin.com/company/ThinkUSAdairy

¹Forecasting the Future of Snacking. Food Business News website. http://www.foodbusinessnews.net/articles/news_home/Consumer_Trends/2017/03/Forecasting_the_future_of_snac.aspx?ID=%7B37D729D8-89D2-42D7-861E-A8ED66D6DCD7%7D. Updated March 7, 2017. Accessed May 3, 2017.

This formula serves as a reference. Product developers are encouraged to modify the formula to meet manufacturing and finished product specifications needs. Developed at CSSI Culinary, Chicago, IL. Based upon Iowa State University formulation of Beyond the Bar. ©2017 U.S. Dairy Export Council.