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APPENDIX

1. Approved Recipe



CULINARY INNOVATION AND NEW PRODUCT DEVELOPMENT

APPROVAL RECIPEE

Recipe Name : TOFU PULP BROWNIES CHIPS
TITLE OF C&D : UTILIZATION OF TOFU PULP AS ANALOG FLOUR
FOR BROWNIES CHIPS
Yield : 1 portion
Main Ingredients : 200 g tofu pulp

Tofu pulp powder

Ingredients :

- 200 g of well-washed tofu pulp
- 2,4 g salt

Method :

1. Wash the tofu pulp and squeeze until the water content is reduced.
2. Roast the tofu pulp in a pan over medium heat until dry
3. Tofu pulp that has been roasted is then blended until it forms a powder
4. Tofu pulp powder is ready to be used as a flour substitute

Brownies chips

Main Ingredients : 60 g tofu pulp powder

Ingredients :



CULINARY INNOVATION AND NEW PRODUCT DEVELOPMENT

- 60 g tofu pulp powder
- 50 g whole egg
- 10 g almond flour for structure
- 30 g melted butter
- 20 g dark chocolate compound,
chopped and
melted
- 2,5 ml ekstrak vanilla
- 30 g icing sugar to taste
- 5 g cocoa powder (Van Houten) to taste

Method :

1. Melt butter with dark chocolate in a saucepan over medium heat and set aside
2. Preheat oven to 160° C
3. Crack a whole egg into a bowl and add icing sugar; stir until dissolves
4. Put the melted chocolate with butter into the bowl and stir until mixed
5. Add tofu pulp powder, almond flour, and cocoa powder into the bowl and stir all ingredients until completely mixed
6. Prepare a cake tin lined with baking paper and pour the batter into the tin
7. Roll out the batter using a scrapper to desired thinness
8. Put the dough into the oven at 160° C for the first 10 minutes
9. Open the oven, then line the brownie chip dough in a small square shape using a scrapper
10. Put the brownie chips back into the oven and wait for 15 minutes or until the brownies become dry and crispy
11. Remove the brownie chips from the oven when desired and let them cool at room temperature

Product Description

These brownie chips are a gluten-free product made using tofu dregs, which are then dried and powdered. The use of tofu dregs aims to replace wheat flour, which



CULINARY INNOVATION AND NEW PRODUCT DEVELOPMENT

is commonly used in making brownies. Another goal of using tofu dregs is to utilize leftover materials (food waste) from tofu production, which is still suitable for consumption because the protein content of the tofu dregs is high, around 21-27%. Brownie chips have a sweet chocolate taste and a crunchy texture in every bite. They are very suitable to be a snack for anyone, anywhere, and anytime.

TRIAL PROGRESS (50 – 100 WORDS)

In the first trial, the texture of the brownie dough was denser due to an error in the composition of the ingredients. In the second trial of the evaluation, it had a slightly bitter taste from cocoa powder, a crunchy texture, and a slight texture typical of tofu pulp ingredients, but the texture was not disturbing when consumed. In the third trial, the evaluation of cocoa powder reduction was carried out. In this third trial, the addition of tofu pulp was made so that the texture was more pronounced and had its own characteristic compared to other brownie chips.

TRIAL DOCUMENTATION

(product pictures)



Trial 1



Trial 2



Trial 3



CULINARY INNOVATION AND NEW PRODUCT DEVELOPMENT

Student Name : Daniel Yoga Wibowo

NIM : 2374130010023

Advisor	1 st Examiner	2 nd Examiner
 Name: <i>Fitri</i> Date: <i>24 March 2024</i>	 Name: <i>Novi Indah P</i> Date: <i>14/3/2025</i>	 Name: Date:

2. Approved Sensory



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CULINARY INNOVATION AND NEW PRODUCT DEVELOPMENT SENSORY TEST

DATE : 16 April 2025
NAME : Daniel Yoga Wibowo
NIM : 2374130010023
PRODUCT : UTILIZATION OF TOFU PULP AS ANALOG FLOUR FOR BROWNIES CHIPS
ADVISOR : Filias Kusuma, S.E., M.M.

PANELIST	SIGHT	SMELL	TEXTURE	TASTE	OVERALL	TOTAL
Panelist 1	4	4	4	4	4	20
Panelist 2	4	4	2	4	3	17
Panelist 3	5	5	5	5	5	25
Panelist 4	3	3	3	3	3	15
Panelist 5	4	3	4	4	4	19
Panelist 6	3	3	2	3	2	13
Panelist 7	4	4	4	4	4	20
Panelist 8	2	3	4	4	3	16
Panelist 9	2	4	2	5	3	16
Panelist 10	4	4	4	3	4	19
TOTAL	35	37	34	39	35	180

NOTES :

1. Enak si
2. Taste sudah okay, namun untuk tekstur apakah memang di arahkan se crispy ini?
3. sudah baik, tekstur ok, sepertinya serving size bisa d buat one bite
4. Okay
5. Tekstur renyah cukup manis dan gurih
6. Ini biskuit bukan brownis
7. Would be nice if there's topping visually it'll be more appealing, can be thinner so texture wise will be more crisp
8. rasa ok. texture bukan brownies. krng apptizing
9. It doesn't look like brownies, and texture is too crispy to br called brownies
10. Ok, has a slight weird taste. Probably from the ampas tahu



3. Consultation Form



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CONSULTATION FORM
CULINARY INNOVATION AND
NEW PRODUCT DEVELOPMENT

Name : Daniel Yegia Wibisono

Student Number : 2374130010023

Advisor : Mrs. Elies

No	Date	Topic Consultation	Name/ Signature	Advisor Signature
1	17 maret 2025	Konsul Perygunaan Omby baru untuk Pembuatan Brounnes (Cookie)		
2	13/3 25	Product Consultation		
3		Item 1		
4	14/5 25	Konsul Persetujuan proposal		
5	20/3 25	Konsultasi Produk CMO		
6	24/3 25	Approval Recipe		

No	Date	Topic Consultation	Name/ Signature	Advisor Signature
7	1/7 25	Boab 4-5		
8	8/1 25	Boab 4-5		
9	3/1 25	Packaging		
10	1/1 25	Boab 4-5		

4. Systematic Process Documentation

Manufacturing process of tofu pulp powder



1. Washed Tofu Pulp



2. Squeezed Tofu Pulp



3. Roasted Tofu Pulp



4. Tofu pulp oven process



5. Tofu pulp blending process



6. The tofu pulp is sieved to obtain a fine powder



7. Tofu pulp powder

Making brownies cracker process



1. Ingredients of brownies cracker tofu pulp



2. Water bath chocolate and butter



3. Mix all ingredients



4. Spread the batter on baking tray, ready to bake



5. Remove from oven then cut into squares



6. Bake again in 170° C (10 min)



7. Brownies Cracker