

DAFTAR PUSTAKA

- A'yunin, N. A. Q., Santoso, U., & Harmayani, E. (2019). Kajian kualitas dan aktivitas antioksidan berbagai formula minuman jamu kunyit asam. *J. Teknologi Pertanian Andalas*, 23(1), 37–48.
<http://tpa.fateta.unand.ac.id/index.php/JTPA/article/view/184>
- Abd Rashid, S. N. A., Hasham, R., Zaitul, Z. I., Cheng, K. K., Aziz, A. A., Shafin, N., & Kaprawi, A. A. (2022). Formulation and characterization of the physicochemical, antioxidant activity and sensory attributes of curcuma-based herbal drink. *Materials Today: Proceedings*, 57, 1061–1066. <https://doi.org/10.1016/j.matpr.2021.09.272>
- Amir, A., Rantesigi, N., & Agusrianto, A. (2022). Seduhan Bawang Putih Terhadap Penurunan Tekanan Darah Pada Pasien Hipertensi: A Literature Review. *Poltekita : Jurnal Ilmu Kesehatan*, 16(1), 113–117. <https://doi.org/10.33860/jik.v16i1.685>
- Anaba, F., Andriyanto, & Mayasari, N. L. P. I. (2021). Potensi Infusa Kemiri (*Aleurites moluccana*) sebagai Analgesik dan Stimulator Stamina. *Acta VETERINARIA Indonesiana*, 9(1), 14–20.
<https://doi.org/10.29244/avi.9.1.14-20>
- Aprilyanti, S., Suryani, F., Andalia, W., Pratiwi, I., & Basuki, M. (2022). Penyuluhan Potensi Ekonomis Ekstrak Lengkuas Sebagai Bahan Campuran Kopi di Desa Sukamulya Kecamatan Sematang Borang Palembang. *Jurnal Pengabdian Masyarakat Indonesia*, 2(2), 143–147. <https://doi.org/10.52436/1.jpmi.420>
- Aryanta, I. W. R. (2019). Bawang Merah Dan Manfaatnya Bagi Kesehatan. *Widya Kesehatan*, 1(1), 29–35.
<https://doi.org/10.32795/widyakesehatan.v1i1.280>
- Azhar, S. F., Y, K. M., & Kodir, R. A. (2021). Pengaruh Waktu Aging dan Metode Ekstraksi terhadap Aktivitas Antioksidan Black Garlic yang Dibandingkan dengan Bawang Putih (*Allium sativum* L.). *Jurnal Riset Farmasi*, 1(1), 16–23. <https://doi.org/10.29313/jrf.v1i1.43>

- Azis, A. (2019). Kunyit (*Curcuma Domestica* Val) Sebagai Obat Antipiretik. *Jurnal Ilmu Kedokteran Dan Kesehatan*, 6(2), 116–120.
<https://doi.org/10.33024/jikk.v6i2.2265>
- Chandini Ravikumar. (2014). Review on Herbal Teas. *Journal of Pharmaceutical Sciences and Research*, 6(5), 236–238.
- Chandrasekara, A., & Shahidi, F. (2018). Herbal beverages: Bioactive compounds and their role in disease risk reduction - A review. *Journal of Traditional and Complementary Medicine*, 8(4), 451–458.
<https://doi.org/10.1016/j.jtcme.2017.08.006>
- Devirizanty, D., Nurmalawati, S., & Hartanto, C. (2021). Perbandingan Unjuk Kinerja Berbagai Tipe pH Meter Digital Di Laboratorium Kimia. *Jurnal Pengelolaan Laboratorium Sains Dan Teknologi*, 1(1), 1–9.
<https://doi.org/10.33369/labsaintek.v1i1.15460>
- Ginting, S. O., Bintoro, V. P., & Rizqiati, H. (2019). Analisis Total BAL, Total Padatan Terlarut, Kadar Alkohol, dan Mutu Hedonik pada Kefir Susu Sapi dengan Variasi Konsentrasi Sari Buah Naga Merah (*Hylocereus polyrhizus*). *Jurnal Teknologi Pangan*, 3(1), 104–109.
<https://doi.org/10.14710/jtp.2019.23017>
- Hadiati, M. S., & Surbakti, M. M. S. (2021). Terites, Kuliner Ekstrim Khas Karo Sebagai Daya Tarik Wisata Kuliner. *Destinesia : Jurnal Hospitaliti Dan Pariwisata*, 3(1), 21–34.
<https://doi.org/10.31334/jd.v3i1.1802>
- Haryana, N. R., Permatasari, T., Damanik, M., Pratiwi, C., & Bahri, H. (2022). Peningkatan Pengetahuan Gizi Dan Higiene Sanitasi Pengolahan Produk Pada Usaha Tambar Tinuktuk Khas Simalungun Di Kota Pematangsiantar. *Abdimas Unwahas*, 7(2), 178–183.
<https://doi.org/10.31942/abd.v7i2.7506>
- Helmalia, A. W., Putrid, P., & Dirpan, A. (2019). Potensi Rempah-Rempah Tradisional Sebagai Sumber Antioksidan Alami Untuk Bahan Baku Pangan Fungsional). *Canrea Journal: Food Technology, Nutritions*,

and Culinary Journal, 2(1), 26–31.

<https://doi.org/10.20956/canrea.v2i1.113>

- Ikhsan, M. A. R., Rosalina, Y., & Susanti, L. (2019). Pengaruh Penambahan Asam Sitrat dan Jenis Kemasan Terhadap Perubahan Mutu Sari Buah Jeruk Kalamansi Selama Penyimpanan pada Suhu Ruang. *Jurnal Agroindustri*, 8(2), 139–149.
- Intan, T., Revia, B., & Erwita, A. (2019). Peningkatan daya saing produsen minuman herbal melalui pembuatan konten kreatif media sosial berbasis pemasaran e-marketing. *Jurnal Komunikasi Profesional*, 3(2). <https://doi.org/10.25139/jkp.v3i2.1982>
- Lestari, R. K., Amalia, E., & Yuwono, Y. (2018). Efektivitas jeruk nipis (*citrus aurantifolia* swingle) sebagai zat antiseptik pada cuci tangan. *Jurnal Kedokteran Dan Kesehatan : Publikasi Ilmiah Fakultas Kedokteran Universitas Sriwijaya*, 5(2), 55–65. <https://doi.org/10.32539/jkk.v5i2.6126>
- Mohammed, G. J., Omran, A. M., & Hussein, H. M. (2016). Antibacterial and phytochemical analysis of piper nigrum using gas chromatography – mass spectrum and fourier-transform infrared spectroscopy. *International Journal of Pharmacognosy and Phytochemical Research*, 8(6), 977–996.
- Mpatswenumugabo, J. P. M. (2024). *Th*, 2024. 2(2), 756.
- Mudaim, S., & Hidayat, S. (2021). Analisis Proksimat Karbon Kulit Kemiri (*Aleurites Moluccana*) Dengan Variasi Suhu Karbonisasi. *Jurnal Ilmu Dan Inovasi Fisika*, 05(02), 157–163.
- Nasution, M. R., & Syamira. (2020). Aktivitas Antioksidan Teh Herbal Dari Campuran Daging Buah Pare (*Momordica charantia* L.), Jahe Merah (*Zingiber officinale* Roscoe) Dan Temulawak (*Curcuma xanthorrhiza* Roxb). *Photon: Jurnal Sain Dan Kesehatan*, 10(2), 167–173. <https://doi.org/10.37859/jp.v10i2.1379>

- Natasutedja, A. O., Lumbantobing, E., Josephine, E., Carol, L., Junaedi, D. I., Normasiwi, S., & Putra, A. B. N. (2020). Botanical Aspects, Phytochemicals and Health Benefits of Andaliman (*Zanthoxylum acanthopodium*). *Indonesian Journal of Life Sciences | ISSN: 2656-0682 (Online)*, 2(1), 8–15. <https://doi.org/10.54250/ijls.v2i1.32>
- Panjaitan, L. P., & Barus, A. (2023). Local Wisdom of Tinuktuk Traditional Typical Food in the Simalungun Community. *Journal of Language Development and Linguistics*, 2(1), 39–46. <https://doi.org/10.55927/jldl.v2i1.2834>
- Panjaitan, R., Ni'mah, S., Romdhonah, R., & Annisa, L. (2015). Pemanfaatan Minyak Biji Labu Kuning (*Cucurbita Moschata* Durh) Menjadi Sediaan Nanoemulsi Topikal Sebagai Agen Pengembangan Cosmetical Anti Aging. *Khazanah*, 7(2), 61–81. <https://doi.org/10.20885/khazanah.vol7.iss2.art5>
- Pratiwi, A. ., Yusran, Islawati, & Artati. (2023). Analisis Kadar Antioksidan pada Ekstrak Daun Binahong Hijau *Anredera cordifolia* (Ten.) Steenis. *Bioma : Jurnal Biologi Makassar*, 8(August 2022), 66–74.
- Pudiastutiningtyas, N., Mubin, N., & Kusumayanti, H. (2015). Diversifikasi Kunyit (*Curcuma Domestica*) Dan Kencur (*Kaempferia Galanga* L.) Sebagai Minuman Herbal Serbuk Siap Saji. *Metana*, 11(01), 13–20.
- Rahmanian, N., Hajar, S., Ali, B., Homayoonfard, M., Ali, N. J., Rehan, M., Sadeh, Y., & Nizami, A. S. (2015). Analysis of physiochemical parameters to evaluate the drinking water quality in the State of Perak, Malaysia. *Journal of Chemistry*, 2015(Cd), 10.
- Razak, A., Djamal, A., & Revilla, G. (2013). Uji Daya Hambat Air Perasan Buah Jeruk Nipis (*Citrus aurantifolia* s.) Terhadap Pertumbuhan Bakteri *Staphylococcus Aureus* Secara In Vitro. *Jurnal Kesehatan Andalas*, 2(1), 05. <https://doi.org/10.25077/jka.v2i1.54>
- Reddy, A., Norris, D. F., Momeni, S. S., Waldo, B., & Ruby, J. D. (2016). The pH of beverages available to the American consumer. *Journal of*

the American Dental Association (1939), 147(4), 255.

<https://doi.org/10.1016/j.adaj.2015.10.019>.The

Rehman, R., Akram, M., Akhtar, N., Jabeen, Q., Saeed, T., Ali Shah, S. M., Ahmed, K., Shaheen, G., & Asif, H. M. (2011). Zingiber officinale roscoe (Pharmacological activity). *Journal of Medicinal Plant Research*, 5(3), 344–348.

Reiza Mutia, Rahil Ade Rifqah, V. A. A. (2014). Jurnal Teknologi dan Industri Pertanian. *Jurnal Teknologi Dan Industri Pertanian*, 6(3), 14–17.

Rempah-rempah Khas Indonesia yang Banyak Diekspor. (n.d.). Wikipedia. Retrieved May 4, 2024, from <https://id.m.wikipedia.org/wiki/Rempah-rempah>

Rivaldi, S., Yunus, Y., & Munawar, A. A. (2019). Prediksi Kadar Total Padatan Terlarut (TPT) dan Vitamin C Buah Mangga Arumanis (Mangifera indica L) Menggunakan Near Infrared Spectroscopy (NIRS) dengan Metode Partial Least Square (PLS). *Jurnal Ilmiah Mahasiswa Pertanian*, 4(2), 349–358.
<https://doi.org/10.17969/jimfp.v4i2.10916>

Saragih, S. N., & Pasaribu, P. (2021). Tinuktuk sebagai Pengobatan Tradisional Pasca Melahirkan di Nagori Amborokan Panei Raya, Kecamatan Raya Kahean, Kabupaten Simalungun. *Jurnal Antropologi Sumatera*, 19(1), 9. <https://doi.org/10.24114/jas.v19i2.31692>

SARI, D., & NASUHA, A. (2021). Kandungan Zat Gizi, Fitokimia, dan Aktivitas Farmakologis pada Jahe (Zingiber officinale Rosc.): Review. *Tropical Bioscience: Journal of Biological Science*, 1(2), 11–18.
<https://doi.org/10.32678/tropicalbiosci.v1i2.5246>

Setyowati, N., Masyhuri, Mulyo, J. H., Irham, & Yudhistira, B. (2023). The hidden treasure of wedang uwuh, an ethnic traditional drink from Java, Indonesia: Its benefits and innovations. *International Journal of Gastronomy and Food Science*, 31(February), 100688.

<https://doi.org/10.1016/j.ijgfs.2023.100688>

- Shintawati, S., Analianasari, A., & Zukryandry, Z. (2020). Kinetika Ekstraksi Minyak Atsiri Lada Hitam (*Piper nigrum*) Secara Hidrodistilasi. *CHEESA: Chemical Engineering Research Articles*, 3(2), 63. <https://doi.org/10.25273/cheesa.v3i2.7388.63-70>
- Sianipar, C., & Sihotang, E. (2010). *Eksistensi Tinuktuk pada Masyarakat Batak Simalungun*. 1–14.
- Silalahi, M. (2019). kencur (*Kaempferia galanga*) dan bioaktivitasnya. *Jurnal Pendidikan Informatika Dan Sains*, 8(1), 127. <https://doi.org/10.31571/saintek.v8i1.1178>
- Suantika, R., Suryaningsih, L., & Gumilar, J. (2018). Pengaruh Lama Perendaman Dengan Menggunakan Sari Jahe Terhadap Kualitas Fisik (Daya Ikat Air, Keempukan Dan Ph) Daging Domba. *Jurnal Ilmu Ternak Universitas Padjadjaran*, 17(2), 67. <https://doi.org/10.24198/jit.v17i2.15129>
- Surarit, R., Jiradethprapai, K., Lertsatira, K., Chanthongthiti, J., Teanchai, C., & Horsophonphong, S. (2023). Erosive potential of vitamin waters, herbal drinks, carbonated soft drinks, and fruit juices on human teeth: An in vitro investigation. *Journal of Dental Research, Dental Clinics, Dental Prospects*, 17(3), 129–135. <https://doi.org/10.34172/joddd.2023.40413>
- Suwanto, S., & Rahmawati, R. (2019). Aktivitas Hipoglikemik Diet Pakan Ekstrak Biji Labu Kuning (*Cucurbita moschata* Duch) Pada Mencit Diabetes Melitus Terpapar Streptozotocin. *JPSCR : Journal of Pharmaceutical Science and Clinical Research*, 4(1), 39. <https://doi.org/10.20961/jpscr.v4i1.27292>
- Tarigan, N., Silalahi, J., Sihotang, U., Kementerian, K., Medan, K., Gizi, J., & Pakam, L. (2024). *Formulasi Resep dan Sifat Organoleptik Tinuktuk sebagai Makanan Tradisional Simalungun Novriani Tarigan 1* , Jansen Silalahi 2 , Urbanus Sihotang 1*. 5(2).

- Taufiq. (2022). Pembuatan dan uji mutu fisik wedang uwuh yang dikombinasikan dengan buah mahkota dewa (*Phaleria Macrocarpa L.*). *Jurnal Kesehatan Yamas Makassar*, 6(2), 79–88.
- Verawati, N., Aida, N., & Yani, A. (2023). Pengaruh Perbandingan Jenis Jahe dan Konsentrasi Jahe pada Karakteristik Kimia, Mikrobiologi Minuman Herbal Tradisional Minaserua. *G-Tech: Jurnal Teknologi Terapan*, 7(4), 1732–1739. <https://doi.org/10.33379/gtech.v7i4.3387>
- Wahyunita, N. S., Gusriani, I., & Rahmi, S. L. (2023). KARAKTERISTIK MINUMAN FUNGSIONAL EKSTRAK DAUN KERSEN (*Mutingia calabura L.*) DAN MADU. *Mediagro*, 19(2), 126. <https://doi.org/10.31942/mediagro.v19i2.8398>
- Wenno, M. R., & Leiwakabessy, J. (2023). Karakteristik fisikokimia, mikrobiologi, dan logam berat dari saus kerang manis (*Gafrarium pectinatum*). *Jurnal Pengolahan Hasil Perikanan Indonesia*, 26(1), 87–96. <https://doi.org/10.17844/jphpi.v26i1.34505>
- Wiyono, A. E., Kuswardhani, N., Mahardika, N. S., Ruriani, E., Sulistyani, I., Choiron, M., & Purbasari, D. (2024). Rekayasa Proses Pembuatan Serbuk Minuman Tradisional dari Rempah dan Non-Dairy Creamer melalui Foam Mat Drying. *Agritekno*, 13(April 2023), 235–246.
- Xiao, F., Xu, T., Lu, B., & Liu, R. (2020). Guidelines for antioxidant assays for food components. *Food Frontiers*, 1(1), 60–69. <https://doi.org/10.1002/fft2.10>
- Yunita, M., & Rahmawati. (2015). Uji Rangkang Berdasarkan Tekstur) . *Konversi, Volume 4 N*, 17–28.

Lampiran 1. Hasil Uji Labolatorium



28.1/F-PP Revisi 5

RESULT OF ANALYSIS / LAPORAN HASIL UJI

I. Number / Nomor

1.1. Order No. / No. Order : SIG.MARK.R.XII.2024.002112

1.2. Certificate No. / No. sertifikat : SIG.LHP.I.2025.071650461

II. Principal / Pelanggan

2.1. Name / Nama : Poltekkes Kemenkes Medan Jurusan Gizi

2.2. Address / Alamat : Jalan Negara Simpang Tanjung Garbus
Lubuk Pakam, Kab Deli Serdang, SUMUT
20514

2.3. Phone / Telepon : +6282363868853

2.4. Contact Person / Personil Penghubung : Alnun Kholillah Nasution

III. Sample / Contoh Uji

3.1. Sample Code / Kode Sampel : -

3.2. Batch Number / No Batch : -

3.3. Lot Number / No Lot : -

3.4. Packaging / Kemasan : -

3.5. Production Date / Tanggal Produksi : -

3.6. Expire Date / Tanggal Kadaluaarsa : -

3.7. Factory Name / Nama Pabrik : -

3.8. Factory Address / Alamat Pabrik : -

3.9. Trade Mark / Nama Dagang : -

3.10. Sample Name / Nama Sample : Minuman Tinuktuk
Kode: MTAT 1

3.11. Other Information / Keterangan Lain : -

3.12. Date of Sampling / Tanggal Sampling : -

3.13. Sampling Location / Lokasi Sampling : -

3.14. Method Sampling / Metode Sampling : -

3.15. Personnel Sampling / Personil Sampling : -

3.16. Environmental Conditions / Kondisi Lingkungan : -

3.17. Date of Acceptance / Diterima : December 30, 2024

3.18. Date of Analysis / Tanggal Uji : December 30, 2024 - January 07, 2025

3.19. Type of Analysis / Jenis Uji : Enclosed

3.20. Location / Lokasi : Lokasi (Location) 1

IV. Result / Hasil Uji

SIG Laboratory (1st Location)
Graha SIG Jl. Rasamala No. 20 Taman
Yasmin Bogor 16113
Phone. +62 251 7532 348

SIG Laboratory (2nd Location)
Jl. Semeru B Ruko No.21
Menteng Bogor

SIG Laboratory (3rd Location)
Jl. Raya Cifor RT 03 RW 08
Bubulak Bogor

SIG Laboratory (4th Location)
Jl. Kanfer Raya Blok R No. 4 Pedalangan, Kec.
Banyumanik, Semarang, Jawa Tengah 50268

Result Of Analysis | Page 1 of 2

The results of these tests relate only to the sample(s) submitted.
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No	Parameter	Unit	Simplo	Duplo	Limit Of Detection	Method
1	Total Dissolved Solid	%	2.38	2.38	-	SNI 3719:2014 Appendix A.3

Bogor, January 07, 2025
PT. Saraswanti Indo Genetech



Dwi Yulianto Laksono, S.Si
General Laboratory Manager

SIG Laboratory (1st Location)
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Yasmin Bogor 16113
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Jl. Sereru B Ruko No.21
Menteng Bogor

Result Of Analysis | Page 2 of 2

SIG Laboratory (3rd Location)
Jl. Raya Cifor RT 03 RW 08
Bubulak Bogor

SIG Laboratory (4th Location)
Jl. Kanfer Raya Blok R No. 4 Pedalangan, Kec.
Banyumanik, Semarang, Jawa Tengah 50268

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RESULT OF ANALYSIS / LAPORAN HASIL UJI

I. Number / Nomor

1.1. Order No. / No. Order : SIG.MARK.R.XII.2024.002112
1.2. Certificate No. / No. sertifikat : SIG.LHP.I.2025.071650462

II. Principal / Pelanggan

2.1. Name / Nama : Poltekkes Kemenkes Medan Jurusan Gizi
2.2. Address / Alamat : Jalan Negara Simpang Tanjung Garbus
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20514
2.3. Phone / Telepon : +6282363868853
2.4. Contact Person / Personil Penghubung : Ainun Kholilah Nasution

III. Sample / Contoh Uji

3.1. Sample Code / Kode Sampel : -
3.2. Batch Number / No Batch : -
3.3. Lot Number / No Lot : -
3.4. Packaging / Kemasan : -
3.5. Production Date / Tanggal Produksi : -
3.6. Expire Date / Tanggal Kadaluausa : -
3.7. Factory Name / Nama Pabrik : -
3.8. Factory Address / Alamat Pabrik : -
3.9. Trade Mark / Nama Dagang : -
3.10. Sample Name / Nama Sample : Minuman Tinuktuk
Kode: MTAT 2
3.11. Other Information / Keterangan Lain : -
3.12. Date of Sampling / Tanggal Sampling : -
3.13. Sampling Location / Lokasi Sampling : -
3.14. Method Sampling / Metode Sampling : -
3.15. Personnel Sampling / Personil Sampling : -
3.16. Environmental Conditions / Kondisi Lingkungan : -
3.17. Date of Acceptance / Diterima : December 30, 2024
3.18. Date of Analysis / Tanggal Uji : December 30, 2024 - January 07, 2025
3.19. Type of Analysis / Jenis Uji : Enclosed
3.20. Location / Lokasi : Lokasi (Location) 1

IV. Result / Hasil Uji

SIG Laboratory (1st Location)
Graha SIG Jl. Rasamala No. 20 Taman
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SIG Laboratory (4th Location)
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Result Of Analysis | Page 1 of 2

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No	Parameter	Unit	Simplo	Duplo	Limit Of Detection	Method
1	Total Dissolved Solid	%	2.20	2.20	-	SNI 3719:2014 Appendix A.3

Bogor, January 07, 2025
PT. Saraswanti Indo Genetech



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General Laboratory Manager

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SIG Laboratory (4th Location)
Jl. Kanfer Raya Blok R No. 4 Pedalangan, Kec.
Banyumanik, Semarang, Jawa Tengah 50268

Result Of Analysis | Page 2 of 2

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RESULT OF ANALYSIS / LAPORAN HASIL UJI

I. Number / Nomor	
1.1. Order No. / No. Order	: SIG.MARK.R.XII.2024.002112
1.2. Certificate No. / No. sertifikat	: SIG.LHP.I.2025.071650463
II. Principal / Pelanggan	
2.1. Name / Nama	: Poltekkes Kemenkes Medan Jurusan Gizi
2.2. Address / Alamat	: Jalan Negara Simpang Tanjung Garbus Lubuk Pakam, Kab Deli Serdang, SUMUT 20514
2.3. Phone / Telepon	: +6282363868853
2.4. Contact Person / Personil Penghubung	: Ainun Kholilah Nasution
III. Sample / Contoh Uji	
3.1. Sample Code / Kode Sampel	: -
3.2. Batch Number / No Batch	: -
3.3. Lot Number / No Lot	: -
3.4. Packaging / Kemasan	: -
3.5. Production Date / Tanggal Produksi	: -
3.6. Expire Date / Tanggal Kadaluausa	: -
3.7. Factory Name / Nama Pabrik	: -
3.8. Factory Address / Alamat Pabrik	: -
3.9. Trade Mark / Nama Dagang	: -
3.10. Sample Name / Nama Sample	: Minuman Tinuktuk Kode: MTKAV 1
3.11. Other Information / Keterangan Lain	: -
3.12. Date of Sampling / Tanggal Sampling	: -
3.13. Sampling Location / Lokasi Sampling	: -
3.14. Method Sampling / Metode Sampling	: -
3.15. Personnel Sampling / Personil Sampling	: -
3.16. Environmental Conditions / Kondisi Lingkungan	: -
3.17. Date of Acceptance / Diterima	: December 30, 2024
3.18. Date of Analysis / Tanggal Uji	: December 30, 2024 - January 07, 2025
3.19. Type of Analysis / Jenis Uji	: Enclosed
3.20. Location / Lokasi	: Lokasi (Location) 1
IV. Result / Hasil Uji	

SIG Laboratory (1st Location)
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SIG Laboratory (2nd Location)
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Menteng Bogor

Result Of Analysis | Page 1 of 2

SIG Laboratory (3rd Location)
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Bubulak Bogor

SIG Laboratory (4th Location)
Jl. Kanfer Raya Blok R No. 4 Pedalangan, Kec.
Banyumanik, Semarang, Jawa Tengah 50268

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No	Parameter	Unit	Simplo	Duplo	Limit Of Detection	Method
1	Viscosity	cP	1.27	1.28	-	18-11-11/MU (Viscometer)

Bogor, January 07, 2025
PT. Saraswanti Indo Genetech



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Menteng Bogor

SIG Laboratory (3rd Location)
Jl. Raya Cifor RT 03 RW 08
Bubulak Bogor

SIG Laboratory (4th Location)
Jl. Kanfer Raya Blok R No. 4 Pedalangan, Kec.
Banyumanik, Semarang, Jawa Tengah 50268

Result Of Analysis | Page 2 of 2

The results of these tests relate only to the sample(s) submitted.
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without the written approval of PT. Saraswanti Indo Genetech

RESULT OF ANALYSIS / LAPORAN HASIL UJI

I. Number / Nomor

1.1. Order No. / No. Order : SIG.MARK.R.XII.2024.002112
1.2. Certificate No. / No. sertifikat : SIG.LHPI.2025.071650464

II. Principal / Pelanggan

2.1. Name / Nama : Poltekkes Kemenkes Medan Jurusan Gizi
2.2. Address / Alamat : Jalan Negara Simpang Tanjung Garbus
Lubuk Pakam, Kab Deli Serdang, SUMUT
20514
2.3. Phone / Telepon : +6282363868853
2.4. Contact Person / Personil Penghubung : Ainun Kholilah Nasution

III. Sample / Contoh Uji

3.1. Sample Code / Kode Sampel : -
3.2. Batch Number / No Batch : -
3.3. Lot Number / No Lot : -
3.4. Packaging / Kemasan : -
3.5. Production Date / Tanggal Produksi : -
3.6. Expire Date / Tanggal Kadaluarsa : -
3.7. Factory Name / Nama Pabrik : -
3.8. Factory Address / Alamat Pabrik : -
3.9. Trade Mark / Nama Dagang : -
3.10. Sample Name / Nama Sample : Minuman Tinuktuk
Kode: MTKAV 2
3.11. Other Information / Keterangan Lain : -
3.12. Date of Sampling / Tanggal Sampling : -
3.13. Sampling Location / Lokasi Sampling : -
3.14. Method Sampling / Metode Sampling : -
3.15. Personnel Sampling / Personil Sampling : -
3.16. Environmental Conditions / Kondisi Lingkungan : -
3.17. Date of Acceptance / Diterima : December 30, 2024
3.18. Date of Analysis / Tanggal Uji : December 30, 2024 - January 07, 2025
3.19. Type of Analysis / Jenis Uji : Enclosed
3.20. Location / Lokasi : Lokasi (Location) 1

IV. Result / Hasil Uji

SIG Laboratory (1st Location)
Graha SIG Jl. Rasamala No. 20 Taman
Yasmin Bogor 16113
Phone. +62 251 7532 348

SIG Laboratory (2nd Location)
Jl. Semeru B Ruko No.21
Menteng Bogor

Result Of Analysis | Page 1 of 2

SIG Laboratory (3rd Location)
Jl. Raya Cifor RT 03 RW 08
Bubulak Bogor

SIG Laboratory (4th Location)
Jl. Kanfer Raya Blok R No. 4 Pedalangan, Kec.
Banyumanik, Semarang, Jawa Tengah 50268

The results of these tests relate only to the sample(s) submitted.
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without the written approval of PT. Saraswanti Indo Genetech

No	Parameter	Unit	Simplo	Duplo	Limit Of Detection	Method
1	Viscosity	cP	1.24	1.25	-	18-11-11/MU (Viscometer)

Bogor, January 07, 2025
PT. Saraswanti Indo Genetech



Dwi Yulianto Laksono, S.Si
General Laboratory Manager

SIG Laboratory (1st Location)
Graha SIG Jl. Rasamala No. 20 Taman
Yasmin Bogor 16113
Phone. +62 251 7532 348

SIG Laboratory (2nd Location)
Jl. Semeru B Ruko No.21
Menteng Bogor

Result Of Analysis | Page 2 of 2

SIG Laboratory (3rd Location)
Jl. Raya Cifor RT 03 RW 08
Bubulak Bogor

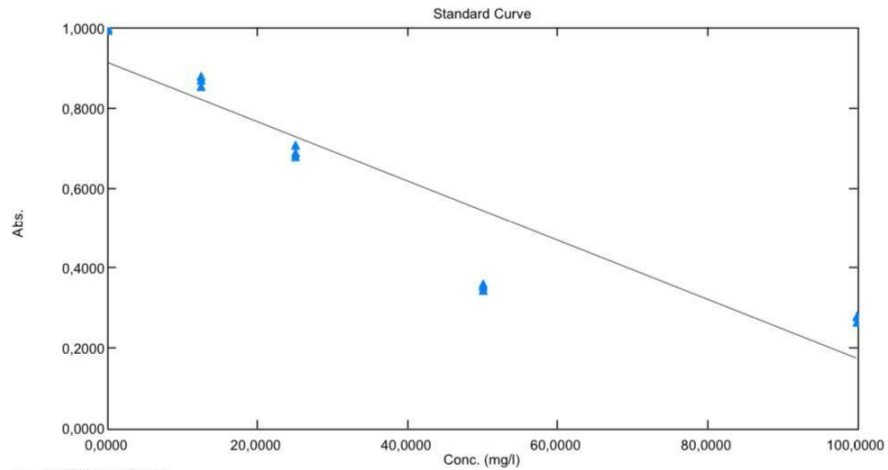
SIG Laboratory (4th Location)
Jl. Kanfer Raya Blok R No. 4 Pedalangan, Kec.
Banyumanik, Semarang, Jawa Tengah 50268

The results of these tests relate only to the sample(s) submitted.
This report shall not be reproduced except in full context,
without the written approval of PT. Saraswanti Indo Genetech

Standard Table Report

21/03/2025 13:44:25

File Name: F:\M suhu 50\M BLENDER.pho



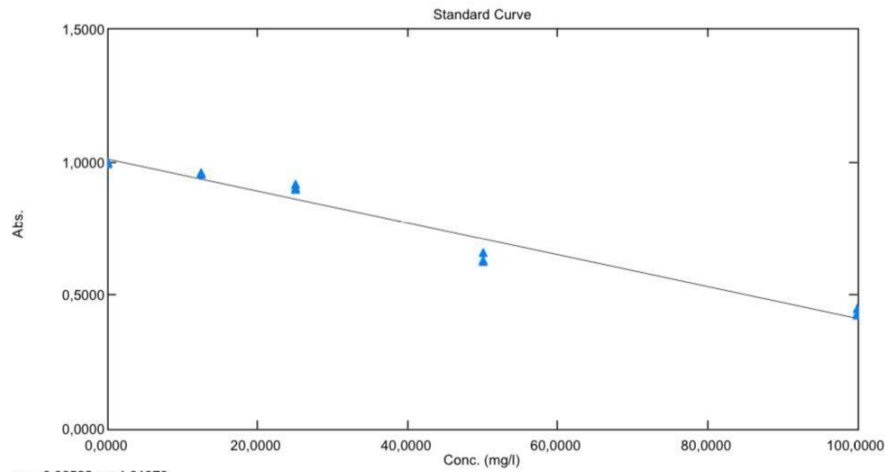
Standard Table

	Sample ID	Type	Ex	Conc	WL515.5	Wgt.Factor	Comments
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2	blanko	Standard		0,0000	0,9926	1,0000	
3	bblanko	Standard		0,0000	0,9983	1,0000	
4	m blender	Standard		12,5000	0,8800	1,0000	
5	m blendeer	Standard		12,5000	0,8532	1,0000	
6	m blenderr	Standard		12,5000	0,8679	1,0000	
7	m blenderrr	Standard		25,0000	0,7082	1,0000	
8	blnderr	Standard		25,0000	0,6870	1,0000	
9	m blendr/.	Standard		25,0000	0,6788	1,0000	
10	mm blnderr./	Standard		50,0000	0,3440	1,0000	
11	m blednrt><	Standard		50,0000	0,3613	1,0000	
12	m blender??	Standard		50,0000	0,3528	1,0000	
13	m blender///	Standard		100,0000	0,2773	1,0000	
14	m blendr*;	Standard		100,0000	0,2791	1,0000	
15	m blender}}	Standard		100,0000	0,2644	1,0000	
16							

Standard Table Report

21/03/2025 13:48:43

File Name: F:\M suhu 50\M TUMBUK.pho



Standard Table

	Sample ID	Type	Ex	Conc	WL515.5	Wgt.Factor	Comments
1	Blanko	Standard		0,0000	0,9988	1,0000	
2	bilanko	Standard		0,0000	0,9926	1,0000	
3	bblanko	Standard		0,0000	0,9983	1,0000	
4	m tumbuk.	Standard		12,5000	0,9591	1,0000	
5	m ttumbuk	Standard		12,5000	0,9532	1,0000	
6	m tumbu./	Standard		12,5000	0,9558	1,0000	
7	m ttumbuk,.	Standard		25,0000	0,9012	1,0000	
8	m tumbuk./	Standard		25,0000	0,8987	1,0000	
9	m ttumbuk/	Standard		25,0000	0,9172	1,0000	
10	m tumbuk,;	Standard		50,0000	0,6576	1,0000	
11	m tuumbuk	Standard		50,0000	0,6298	1,0000	
12	m ttumbuk./	Standard		50,0000	0,6268	1,0000	
13	m tumbuk,;	Standard		100,0000	0,4507	1,0000	
14	m ttumbuk,;	Standard		100,0000	0,4258	1,0000	
15	m tyymbukk,;	Standard		100,0000	0,4310	1,0000	
16							

Tabel Standar Deviasi pH, Viskositas dan Total Padatan Terlarut

Descriptive Statistics

	N	Sum	Mean	Std. Deviation
pHMT1	2	10,38	5,1900	,01414
pHMT2	2	10,73	5,3650	,03536
VisMT1	2	2,55	1,2750	,00707
VisMT2	2	2,49	1,2450	,00707
TPTMT1	2	4,76	2,3800	,00000
TPTMT2	2	4,40	2,2000	,00000
Valid N (listwise)	2			

Tabel Standar Deviasi Persen Inhibisi

Descriptive Statistics

	N	Sum	Mean	Std. Deviation
IC50MT1	3	172,12	57,3733	,67300
IC50MT2	3	265,04	88,3467	2,44099
Valid N (listwise)	3			

Lampiran 2. Berkas EC (etik penelitian)

 **Kemenkes**

Kementerian Kesehatan
Poltekkes Medan
Komisi Etik Penelitian Kesehatan
Jalan Jamin Ginting KM. 13,5
Medan, Sumatera Utara 20137
(061) 8368633
<https://poltekkes-medan.ac.id>

KETERANGAN LAYAK ETIK / DESCRIPTION OF ETHICAL APPROVAL
"ETHICAL APPROVAL "
No: 01.26 914 /KEPK/POLTEKKES KEMENKES MEDAN 2025

Protokol Penelitian yang diusulkan oleh :
The Research Protocol Proposed By

Peneliti Utama : AINUN KHOLILAH NASUTION
Principil In Investigator

Nama Institusi : Prodi D-IV Gizi Poltekkes Kemenkes Medan
Name of the Institution

Dengan Judul :
Title
**" PENGARUH TEKNIK PENGOLAHAN MINUMAN HERBAL TINUKTUK MENGGUNAKAN BLENDER
DAN TUMBUK TERHADAP KADAR PH,VISKOSITAS,TOTAL PADATAN TERLARUT
DAN PERSEN INHIBISI"**

Dinyatakan layak etik sesuai 7 (tujuh) Standar WHO 2011, Yaitu 1)Nilai Sosial, 2)Nilai ilmiah, 3) Pemerataan
Beban dan Manfaat, 4)Risiko, 5)Bujukan/Eksploitasi, 6)Kerahasiaan dan Privacy, dan 7) Persetujuan
Setelah Penjelasan, yang merujuk pada pedoman CIOMS 2016. Hal ini seperti yang ditunjukkan oleh
terpenuhinya indikator.

*Declared to be ethically appropriate in accordance to 7 (seven) WHO 2011 Standards, 1) Social Values ,
2)Scientific Values , 3)Equitable Assessment and Benefits, 4)Risks, 5)Persuasion/Exploitation, 6)
Confidentiality and Privacy, and 7)Informed Consent, referring to the 2016 CIOMS guidelines. This is as
indicated by the fulfillment of the indicators of each standard*

Pernyataan Layak Etik ini berlaku selama kurun waktu 31 Januari 2025 sampai 31 Januari 2026
This declaration of ethics applies during the period 31 January 2025 until 31 January 2026

Medan, 31 January 2025
Ketua/chairperson


dr. Lestari Rahmah, MKT.
NIP.197106222002122003

Lampiran 3. Dokumentasi Minuman Herbal Tinuktuk

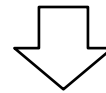
Dokumentasi pembuatan tinuktuk



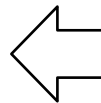
Persiapan bahan



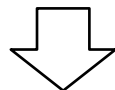
Pencucian bahan dan dianginkan satu malam



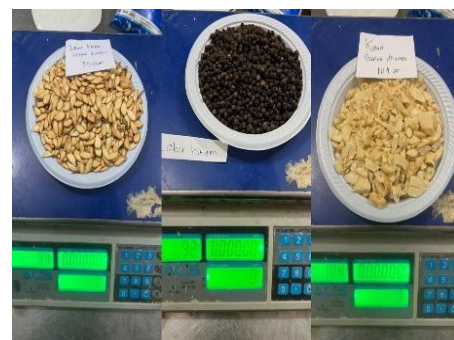
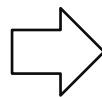
Bahan MT1



Bahan setelah diangin-anginkan ditimbang



Bahan MT 2



Biji labu kering, lada hitam, dan kemiri setelah disangrai



Setelah ditimbang bahan ditumbuk dalam lumpang satu persatu



Memblender bahan satu persatu



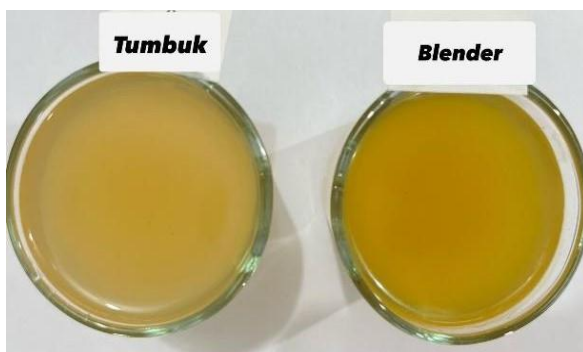
Tinuktuk basah yang sudah diolah dengan cara ditumbuk dan blender



Dikeringkan menggunakan cabinet dryer dengan suhu 50 °C selama 7 jam



Tinuktuk yang sudah kering



Minuman herbal tinuktuk diseduh menggunakan teko dengan bahan sebanyak 10 gr dengan suhu air 80 °C dengan waktu infus selama 10 menit



Pengecekan kadar pH minuman herbal tinuktuk di Lab Mikrobiologi Kampus Gizi



Alat viskometer untuk pengecekan kadar viskositas minuman herbal tinuktuk



Alat refraktometer untuk pengecekan kadar total padatan terlarut minuman herbal tinuktuk



Alat spektrofotometer untuk pengecekan kadar persen inhibisi pada minuman herbal tinuktuk

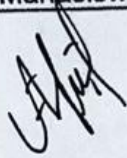
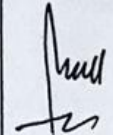
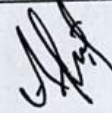
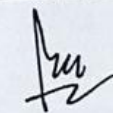
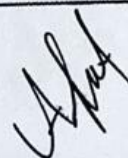
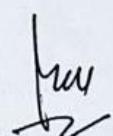
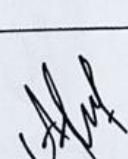
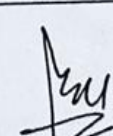
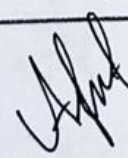
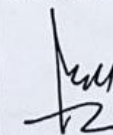
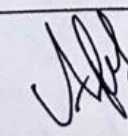
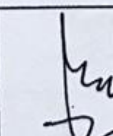
Lampiran 4. Lembar Bukti Bimbingan

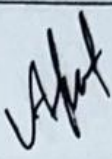
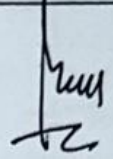
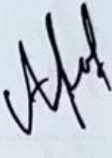
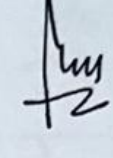
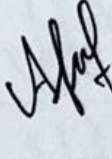
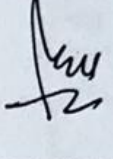
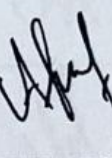
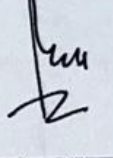
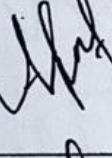
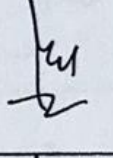
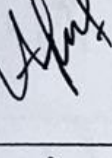
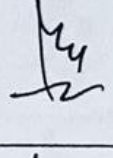
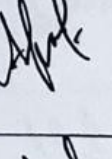
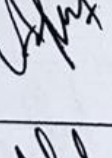
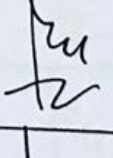
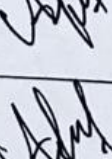
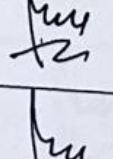
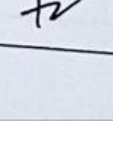
Bukti Bimbingan Skripsi

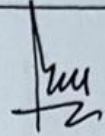
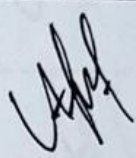
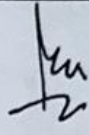
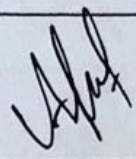
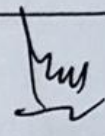
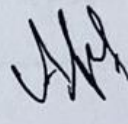
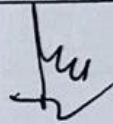
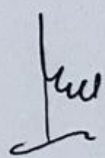
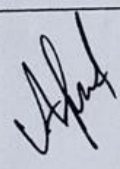
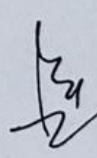
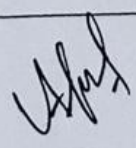
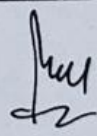
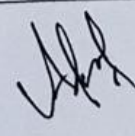
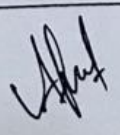
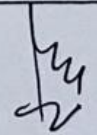
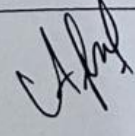
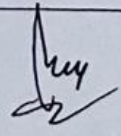
Nama : Ainun Kholilah Nasution

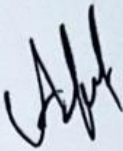
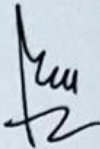
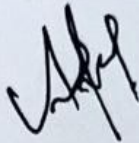
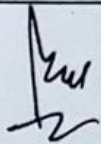
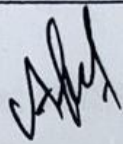
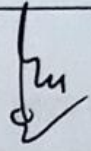
Nomo Induk Mhasiswa : P01031221004

Judul : Pengaruh teknik pengolahan minuman herbal
Tinuktuk menggunakan blender dan tumbuk
Terhadap kadar pH, viskositas, Total Padatan
Terlarut dan Persen Inhibisi

No	Tanggal	Topik bimbingan	T.Tangan Mahasiswa	T.Tangan Pembimbing
1.	28 Maret 2024	Membaca buku, pedoman skripsi, membaca artikel, belajar mendeley		
2.	3 April 2024	Mencari dan diskusi topik		
3.	18 April 2024	Mencari jurnal tentang tinuktuk, minuman herbal dan pengolahan minuman herbal		
4.	25 April 2024	Mendiskusikan Bab I dan Bab II		
5.	2 Mei 2024	Revisi Bab I		
6.	16 Mei 2024	Revisi Bab II		

7.	25 Mei 2024	Mendiskusikan Bab III		
8.	11 Mei 2024	Menunjukkan hasil Tinuktuk		
9.	13 Juni 2024	Revisi Bab III		
10.	24 Juni 2024	Perbaikan proposal		
11.	1 Juli 2024	Seminar Proposal		
12.	24 Juli 2024	Revisi proposal oleh pembimbing		
13.	29 Juli 2024	Revisi dosen penguji I		
14.	01 Agustus 2024	Revisi dosen penguji II		
15.	05 Agustus 2024	Pengumpulan Proposal Skripsi ke Mahasiswa		
16.	22 Januari 2025	Bimbingan skripsi I		

17.	24 Maret 2025	Bimbingan skripsi II		
18.	08 April 2025	Bimbingan skripsi III		
19.	11 April 2025	Bimbingan skripsi IV		
20.	21 April 2025	Seminar hasil		
21.	23 April 2025	Perbaikan skripsi dengan dosen pembimbing		
22.	6 Mei 2025	Perbaikan skripsi dengan dosen pembimbing		
23.	14 Mei 2025	Acc skripsi oleh pembimbing ke penguji		
24.	14 Mei 2025	Revisi dosen penguji I		
25.	16 Mei 2025	Revisi dosen penguji II		
26.	5 Juni 2025	Pembuatan Abstrak		

27.	16 Juni 2025	Pengurusan abstrak ke direktorat		
28.	18 Juni 2025	Membuat data riwayat hidup dan surat pernyataan		
29.	19 Juni 2025	Memeriksa keseluruhan skripsi sebelum jilid lux		

Lampiran 5. Surat Pernyataan

Pernyataan

Saya yang bertanda tangan dibawah ini :

Nama : Ainun Kholilah Nst

NIM : P01031221004

Menyatakan bahwa data penelitian yang terdapat di SKRIPSI saya adalah benar saya ambil dan bila tidak saya bersedia ujian ulang (ujian utama saya batalkan)

Yang membuat pernyataan



(Ainun Kholilah Nst)

Lampiran 6. Daftar Riwayat Hidup

DAFTAR RIWAYAT HIDUP

Nama Lengkap : Ainun Kholilah Nst

Tempat/Tanggal Lahir : Salambue 14 Juni 2003

Nama Orang Tua

Ayah : Mhd.Sarif Nst

Ibu : Misna Sari Lubis

Alamat : Desa Bangkelang Kec.Batang Natal
Kab.Mandailing Natal

No. Hp : 081396904100

Riwayat Pendidikan : 1. RA Al-Ihsan Muara Soma
(Tahun 2008-2009)
2. SDN 257 Bangkelang (Tahun 2009-2015)
3. MTsN 1 Mandailing Natal (Tahun 2015-2018)
4. MAN 5 Mandailing Natal (Tahun 2018-2021)
5. Politeknik Kesehatan Kemenkes Medan
(Tahun 2021-2025)

Hobby : Menulis

Motto : “ Kesuksesan adalah hasil dari kerja keras,
Ketekunan dan do’a”