NutraNorth

# CERTIFICATE OF ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| **Manufactured for** | **MACKISEN** | | | | |
| **Name of product:** | **GABA** | | | **NPN** | **80132632** |
| **Packaging Lot # :** | **M2500516/1** | **Master Packaging Record #** | | **Expiry Date :** | **08/2028** |
| | | **MPR** | **MA-N632-90-V0** | | |
| **Manufacturing Lot # :** | **M2500516** | **Master Manufacturing Record #:** | | **MFG Date:** | **09/2025** |
| | | **MMR** | **MA-N632-V0** | | |
| **Storage Conditions:** | Store at room temperature ( R.T ), cool dry area keep away from sunlight and heat. | | | | |
| **Physical Description:** | White powder in clear Veggie "0" capsules. | | 90 count in Bottle-150 cc-38/400 White HDPE Round with Cap-38-400 white HIS P/P,ribbed,plain liner. | | |

**Physical Tests:**

| | | | Specifications | | | | |
|---|---|---|---|---|---|---|---|
| **TESTES** | **Results** | | **Low** | **Target** | **High** | **Strength** | **Method** |
| Average Wt. of Capsules | 606 mg | | 546 | 607 | 668 | mg | USP <2091> |
| Wt. variation of Capsules | Conforms | | Conforms as per USP weight variation +/- 10 % | | | | USP <2091> |
| Odour & Taste | Conforms | | Characteristic, Conforms to Standard | | | | Visual, Olfactory |
| Disintegration | 10 min | | NMT 30 | | | min | USP <2040> |
| **IDENTITY** | Conforms | | Conforms to standard | | | | FTIR |
| **Quantity / Potency :** | **Results** | | **Low** | **Target** | **High** | **Strength** | **Method** |
| **By Qualitative Analysis** | | | | | | | |
| GABA( Gamma Aminobutyric acid ) | 515.11 | mg | 400.00 | 500.00 | 600.00 | mg | JPL-040.00 (HPLC) |
| **NON-MEDICINAL INGREDIENTS** | Microcrystalline Cellulose, Empty Clear Vegetable Capsule Size "0" | | | | | | |

**Purity:**

| **MICRO:** | **Results** | **Limits** | **Method** |
|---|---|---|---|
| Total Plate Count | <10 c.f.u / g | < 3,000 c.f.u / g | USP <2021/2022> |
| Total Yeast | <10 c.f.u / g | < 300 c.f.u / g | USP <2021/2022> |
| Total Mold | <10 c.f.u / g | < 300 c.f.u / g | USP <2021/2022> |
| E.Coli | Not Detected | Not Detected | USP <2021/2022> |
| Salmonella Spp | Not Detected | Not Detected | USP <2021/2022> |
| Staphylococcus Aureus | Not Detected | Not Detected | USP <2021/2022> |
| **HEAVY METALS:** | **Results** | **Limits - 3 capsules / day** | **Method** |
| Arsenic | <0.0003 mcg / kg b.w./day | < 0.14 mcg / kg b.w./day | ICP-MS |
| Cadmium | <0.0001 mcg / kg b.w./day | < 0.09 mcg / kg b.w./day | ICP-MS |
| Lead | 0.0020 mcg / kg b.w./day | < 0.14 mcg / kg b.w./day | ICP-MS |
| Total Mercury | <0.0001 mcg / kg b.w./day | < 0.29 mcg / kg b.w./day | ICP-MS |

**Prepared by:** Alexlima Jan/03/2026

**Approved by:** BShargaw.n Jan/03/2026

**Quality Assurance**

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NutraNorth

# CERTIFICATE OF ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| **Manufactured for** | **MACKISEN** | | | | |
| **Name of product:** | **GABA** | | | **NPN** | **80132632** |
| **Packaging Lot # :** | **M2500516/2** | **Master Packaging Record #** | | **Expiry Date :** | **08/2028** |
| | | **MPR** | **MA-N632-180-V0** | | |
| **Manufacturing Lot # :** | **M2500516** | **Master Manufacturing Record #:** | | **MFG Date:** | **09/2025** |
| | | **MMR** | **MA-N632-V0** | | |
| **Storage Conditions:** | Store at room temperature ( R.T ), cool dry area keep away from direct sunlight and heat. | | | | |
| **Physical Description:** | White powder in clear Veggie "0" capsules. | | 180 count in Bottle-250 cc-45/400 White HDPE Round with Cap-45-400 white HIS P/P,ribbed,plain liner. | | |

**Physical Tests:**

| | | | Specifications | | | | |
|---|---|---|---|---|---|---|---|
| **TESTES** | **Results** | | **Low** | **Target** | **High** | **Strength** | **Method** |
| Average Wt. of Capsules | 606 mg | | 546 | 607 | 668 | mg | USP <2091> |
| Wt. variation of Capsules | Conforms | | Conforms as per USP weight variation +/- 10 % | | | | USP <2091> |
| Odour & Taste | Conforms | | Characteristic, Conforms to Standard | | | | Visual, Olfactory |
| Disintegration | 10 min | | NMT 30 | | | min | USP <2040> |
| **IDENTITY** | Conforms | | Conforms to standard | | | | FTIR |
| **Quantity / Potency :** | **Results** | | **Low** | **Target** | **High** | **Strength** | **Method** |
| **By Qualitative Analysis** | | | | | | | |
| GABA( Gamma Aminobutyric acid ) | 515.11 | mg | 400.00 | 500.00 | 600.00 | mg | JPL-040.00 (HPLC) |
| **NON-MEDICINAL INGREDIENTS** | Microcrystalline Cellulose, Empty Clear Vegetable Capsule Size "0" | | | | | | |

**Purity:**

| **MICRO:** | **Results** | **Limits** | **Method** |
|---|---|---|---|
| Total Plate Count | <10 c.f.u / g | < 3,000 c.f.u / g | USP <2021/2022> |
| Total Yeast | <10 c.f.u / g | < 300 c.f.u / g | USP <2021/2022> |
| Total Mold | <10 c.f.u / g | < 300 c.f.u / g | USP <2021/2022> |
| E.Coli | Not Detected | Not Detected | USP <2021/2022> |
| Salmonella Spp | Not Detected | Not Detected | USP <2021/2022> |
| Staphylococcus Aureus | Not Detected | Not Detected | USP <2021/2022> |
| **HEAVY METALS:** | **Results** | **Limits - 3 capsules / day** | **Method** |
| Arsenic | <0.0003 mcg / kg b.w./day | < 0.14 mcg / kg b.w./day | ICP-MS |
| Cadmium | <0.0001 mcg / kg b.w./day | < 0.09 mcg / kg b.w./day | ICP-MS |
| Lead | 0.0020 mcg / kg b.w./day | < 0.14 mcg / kg b.w./day | ICP-MS |
| Total Mercury | <0.0001 mcg / kg b.w./day | < 0.29 mcg / kg b.w./day | ICP-MS |

**Prepared by:** Aleelima Jan/23/2026

**Approved by:** Bhargav.A Jan/23/2026

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