

## (L-alpha-glyceryl phosphorylcholine)

# alpha-GPC

### **Description**

Alpha-GPC is one of the products of phospholipid metabolism in the body. It is the biosynthetic precursor of the important neurotransmitter acetylcholine and lecithin. Experimental research and clinical application show that alpha-GPC can not only improve people's memory and cognitive ability, but also have significant effects on cerebral circulation decline and senile dementia, so it is called the anti-aging nutrient of the brain. \* In addition, it also has the functions of resisting muscle atrophy, protecting blood vessels, and improving fertility. \* Therefore, GPC has important value in the food, health products and pharmaceutical industries.

#### **Application**

- Nutritional Supplements: Used in supplements for cognitive support and memory enhancement.
- Infant Formula: Added to some infant formulas for cognitive development support of infants.
- Medical Foods: Included in specialized formulations aimed at supporting brain health and cognitive function in specific medical condition.

### **Storage & Packaging**

Store in well-closed containers at room temperature. Packaged in 25kg bags.

#### Advantages

- GRAS approved ingredient by the FDA GRN No. 1141
- High purity (≥98%)
- Low heavy metal and microorganisms
- Gluten-free and non-GMO

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<b>Test Item</b>	Specification	Method
Identification (IR)	Conforms to the standard	USP43-NF38 (IR)
Assay	98.0%-102.0%	In-house method (on anhydrous basis) (#SOP- QC1-318-01)
Physical Properties		
Particle size	≥ 85% passing 80 mesh	ChP2020 Vol.4, Chap.0982
Specific rotation	-2.4°2.8°	USP43-NF38
Appearance	White crystal or crystalline powder	Visual
Bulk density	0.4-0.7 g/ml	ChP2020 Vol.4, Chap. 0993
Tapped density	0.5-0.8 g/ml	ChP2020 Vol.4, Chap. 0993
Chemical Control	· · · · · · · · · · · · · · · · · · ·	
рН	5.0 - 7.0	USP43-NF38 (85 mg/ml, solution)
Water	≤ 1.0%	USP43-NF38 (KF method)
Chloride	≤ 0.02%	ChP2020 Vol.4, Chap. 0801
Sulfate	≤ 0.02%	ChP2020 Vol.4, Chap. 0802
Phosphate	≤ 0.005%	In-house method (#SOP- QC1-318-01)
Glycerol	≤ 0.50%	USP43-NF38 (HPLC)
Related substances	Beta-GPC: ≤ 0.10%; Any individual unspecified impurity: ≤ 0.10%; Total impurities: ≤ 2.0%	USP43-NF38 (HPLC)
Residual solvents	Ethanol: $\leq 0.50\%$ N-butanol: $\leq 0.50\%$	In-house method (GC, #SOP-QC1-318-01)
Heavy Metals	1 1	
Lead (Pb)	≤ 0.5ppm	GB5009.268-2016
Arsenic (As)	≤ 1.0 ppm	GB5009.268-2016
Cadmium (Cd)	≤ 0.5 ppm	GB5009.268-2016
Mercury (Hg)	≤ 0.1 ppm	GB5009.268-2016
Microbiological Contro		
Total plate count	≤ 1000 cfu/g	ChP2020 Vol.4, Chap. 1105
Yeast and Mold	≤ 100 cfu/g	ChP2020 Vol.4, Chap. 1105
Escherichia coli	Absent in 10 g	ChP2020 Vol.4, Chap. 1106
Salmonella	Absent in 10 g	ChP2020 Vol.4, Chap. 1106
Staphylococcus aureus	Absent in 10 g	ChP2020 Vol.4, Chap. 1106
Coliforms	Absent in 1 g	GB4789.3-2016

#### Certificates

#### ISO9001, FSSC22000, Kosher, Halal, GMP, and more

\*These statements have not been evaluated by the Food & Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease.

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