

# NFAshyWa™

Produced in China GMP-Standard workshop,  
Quality controlled by CNAS-certified Lab.



## What is Ashwagandha Extract ?

Ashwagandha extract (*Withania somnifera*), also known as Indian ginseng, is a traditional Ayurvedic herb that primarily grows in India, Africa, and the Middle East with thousands of years of application history. Ashwagandha is widely applied in health supplements for purposes such as anxiety relief, improving sleep, and boosting immunity. In recent years, with the growing global demand for natural herbs and supplements, coupled with advancements in extraction technologies, the market for Ashwagandha Extract has been expanding. It has become a star ingredient in the fields of sleep supports, stress relief, and other wellness products.



## Product information

### Specifications:

Withanolides 0.5%, 1.5%, 2.5%, 5.0%, 10.0%

Water Soluble Ashwagandha Extract

**Test Method:** HPLC

**Test Standard:** USP



## Certifications



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# NF Ashwa® Advantages

- ✓ Ayurvedic Traditional Herb, Natural Source.
- ✓ USP Standard, Quality controlled by CNAS-certified Lab.
- ✓ Cutting-edge Technology: Led by Academicians and a team of over 30 experts with strong pharmaceutical backgrounds, dedicated to R&D for 20 years.
- ✓ Proven Efficacy: Product efficacy certified by authoritative third-party organization.
- ✓ Patent Protection
- ✓ Customized Services: Comprehensive technical support from product usage to efficacy evaluation based on customer needs, providing solutions for various applications.

## Functions

### 1 Anti-anxiety and anti-depression

Ashwagandha extract significantly improved anxiety and depression symptoms in an 8-week clinical trial. Compared to the placebo group, participants taking Ashwagandha extract showed a clear advantage in alleviating anxiety symptoms, and this effect may be related to a reduction in cortisol levels.

(Chandrasekhar et al., 2012)

### 2 Antioxidant

Ashwagandha extract has significant antioxidant properties. It reduces oxidative stress by enhancing the activity of antioxidant enzymes in the body, such as SOD, CAT, and GSH, promoting cell repair and exhibiting anti-aging effects. Studies show that the withanolides in Ashwagandha can reduce cell damage caused by hydrogen peroxide, demonstrating powerful antioxidant effects.

(Vijayakumar et al., 2008)

### 3 Immune regulation

Ashwagandha extract has immune-boosting effects, primarily by stimulating the function of macrophages and enhancing the activity of T cells to regulate the immune system. Its immune-modulating mechanism may be related to the direct effects of its active compounds on immune cells.

(Bhat et al., 2010)

### 4 Endocrine regulation and stress resistance

Ashwagandha extract alleviates chronic stress responses by regulating the hypothalamic-pituitary-adrenal (HPA) axis. By effectively reducing cortisol levels under prolonged stress, it helps restore hormonal balance in the body and improves stress-related physical fatigue, sleep quality, and mental well-being.

(Auddy et al., 2008)

### 5 Neuroprotection Promotion

Ashwagandha extract is considered to have neuroprotective effects, particularly in preventing neurodegenerative diseases such as Alzheimer's disease and Parkinson's disease. Its mechanisms of action involve antioxidant, anti-inflammatory properties, as well as promoting the expression of nerve growth factor (NGF).

Mishra et al., 2000

### 6 Anti-inflammatory

Ashwagandha extract also has anti-inflammatory properties. It alleviates inflammatory responses by inhibiting the release of inflammatory factors in the body, such as TNF- $\alpha$ , IL-1 $\beta$ , and IL-6. Additionally, it reduces cell damage caused by inflammation through its antioxidant effects.

(Singh et al., 2011)

## Summary

The specific biological mechanisms of Ashwagandha extract are still under continuous research. Scientists and research institutions worldwide are actively exploring them. Due to its potential effects in neuroendocrine regulation, immunomodulation, antioxidant and anti-inflammatory activities, this extract is being increasingly applied in the nutraceutical field and has attracted significant attention.

## Reference

1. Chandrasekhar, K., Kapoor, J., & Anishetty, S. (2012). "A Randomized Double-Blind, Placebo-Controlled Study of the Effect of Ashwagandha (*Withania somnifera*) Extract on Stress and Anxiety." *Indian Journal of Psychological Medicine*, 34(3), 255-262.
2. Vijayakumar, R. S., et al. (2008). "Antioxidant and anti-inflammatory activities of *Withania somnifera* (Ashwagandha)." *Indian Journal of Experimental Biology*, 46(1), 56-63.
3. Bhat, A., et al. (2010). "Immunomodulatory activity of *Withania somnifera*: A promising herb for therapeutic applications." *Journal of Ethnopharmacology*, 129(2), 379-385.
4. Auddy, B., et al. (2008). "Efficacy of Ashwagandha on Stress and Cognitive Functioning." *Journal of Alternative and Complementary Medicine*, 14(4), 415-424.
5. Mishra, L. C., et al. (2000). "Withania somnifera: A role in promoting neuronal health." *Phytomedicine*, 7(5), 410-415.
6. Singh, N., et al. (2011). "Withania somnifera (Ashwagandha) inhibits the expression of inflammatory cytokines in vitro and in vivo." *Journal of Ethnopharmacology*, 136(2), 179-183. z



# NF Ashwa® Efficacy Verification

NF Ashwa® Ashwagandha Extract  
"Verified by Zebrafish" efficacy certification has been obtained



Table 2. relief anxiety effect of sample(n=10)

Group	Concentration (µg/mL)	Total movement distance (mm, mean ± SE)	Relief anxiety effect(%)	p-value	Test results
Control	-	3680 ± 140	-	<0.05	-
Model	-	4866 ± 382	-	-	-
Estazolam	5.00	3309 ± 369	32	<0.01	Significant
NF Ashwa® Ashwagandha Extract	50.0	3427 ± 107	30	<0.01	Significant

The experimental phenotype and column chart for the effect of sample are shown in Figure 1 and Figure 2 below.

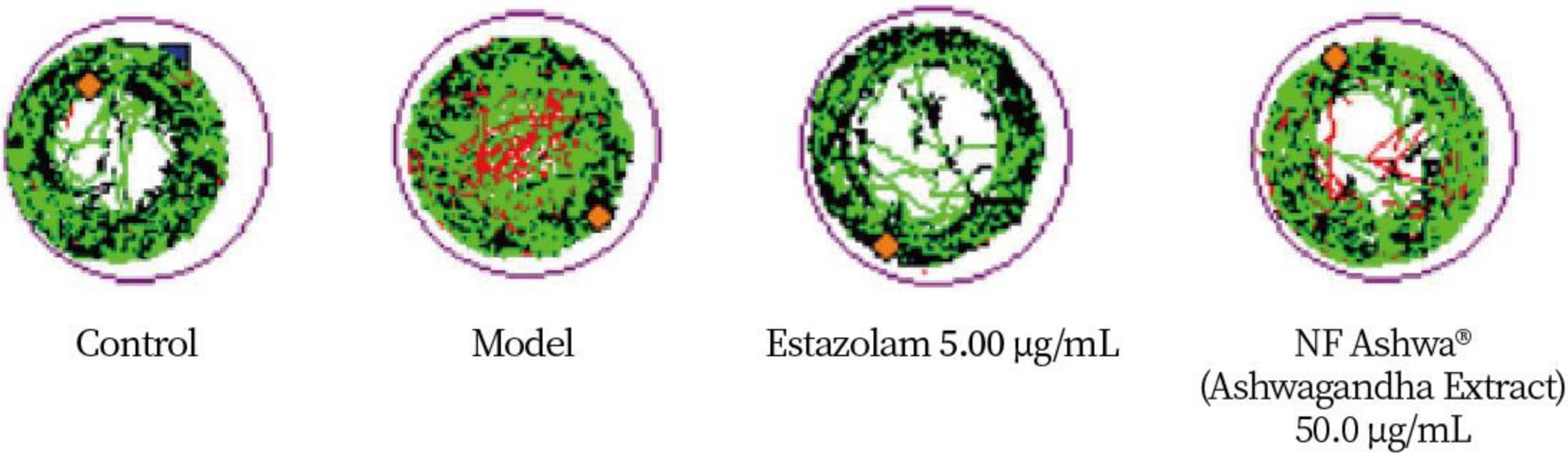


Figure 1. The behavioral typical diagram after NF Ashwa® Ashwagandha Extract treatment  
The black line is slow motion, the green line is medium movement, and the red line is fast movement

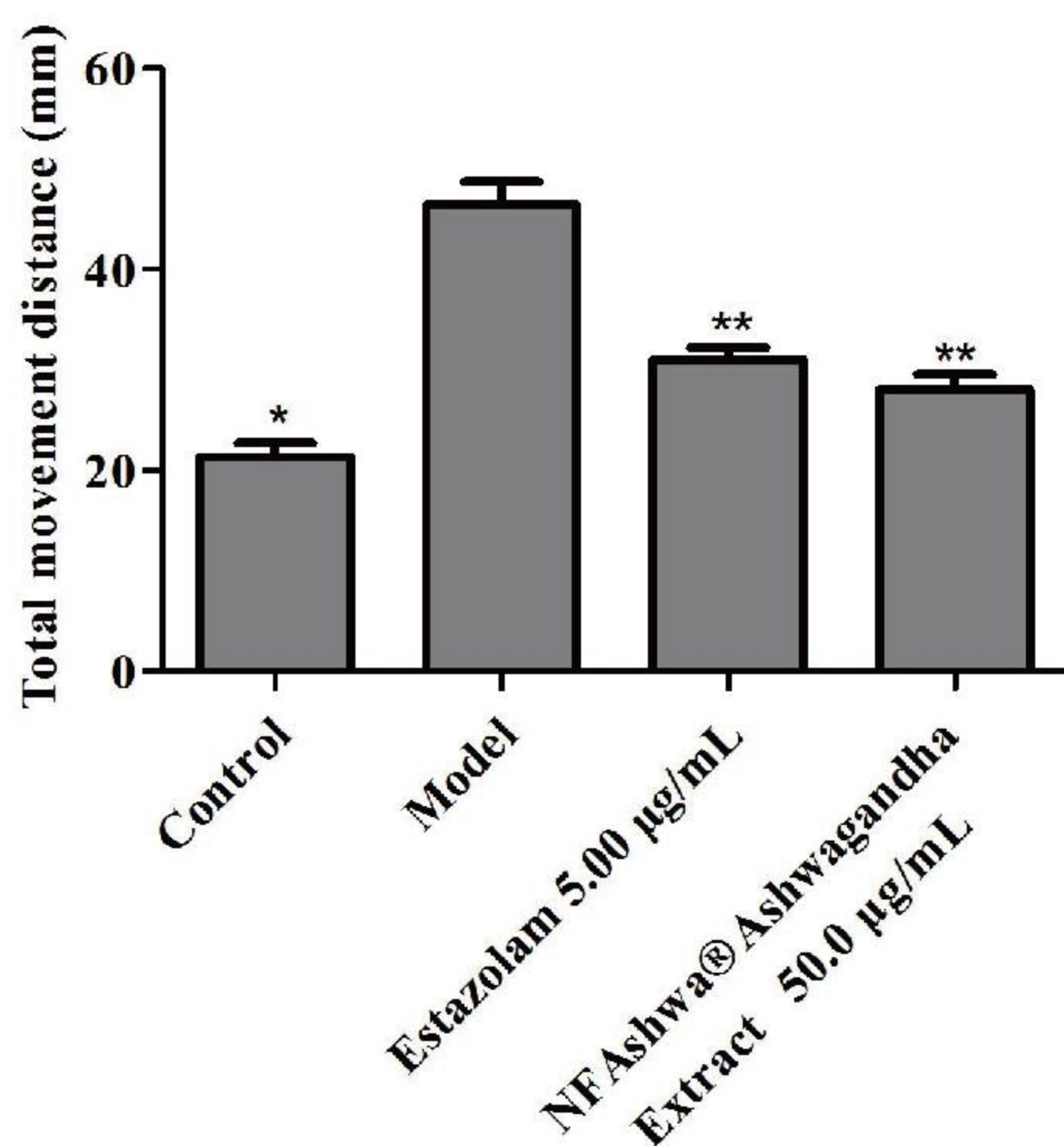


Figure 2. The total movement distance after NF Ashwa® Ashwagandha Extract treatment  
Compared with model group, \*p<0.05, \*\*p<0.01

It was observed that the the total movement distance in zebrafish in the NF Ashwa® Ashwagandha Extract group was significantly reduced compared with the model control group, indicating that NF Ashwa® Ashwagandha Extract has relief anxiety effect.

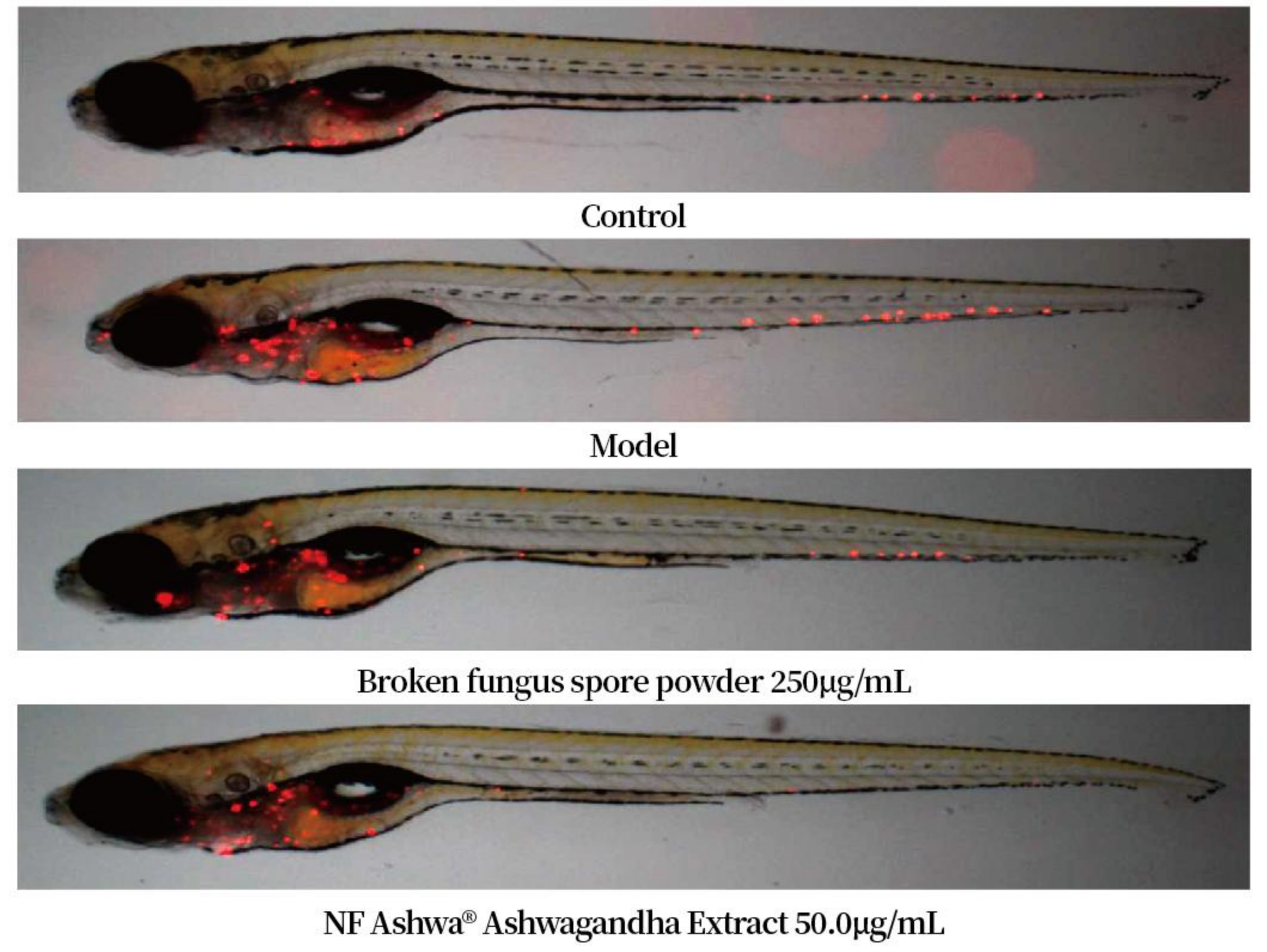


Figure 1. The number of residual fluorescent particles after NF Ashwa® Ashwagandha Extract treatment  
The red fluorescent particles are fluorescent microspheres

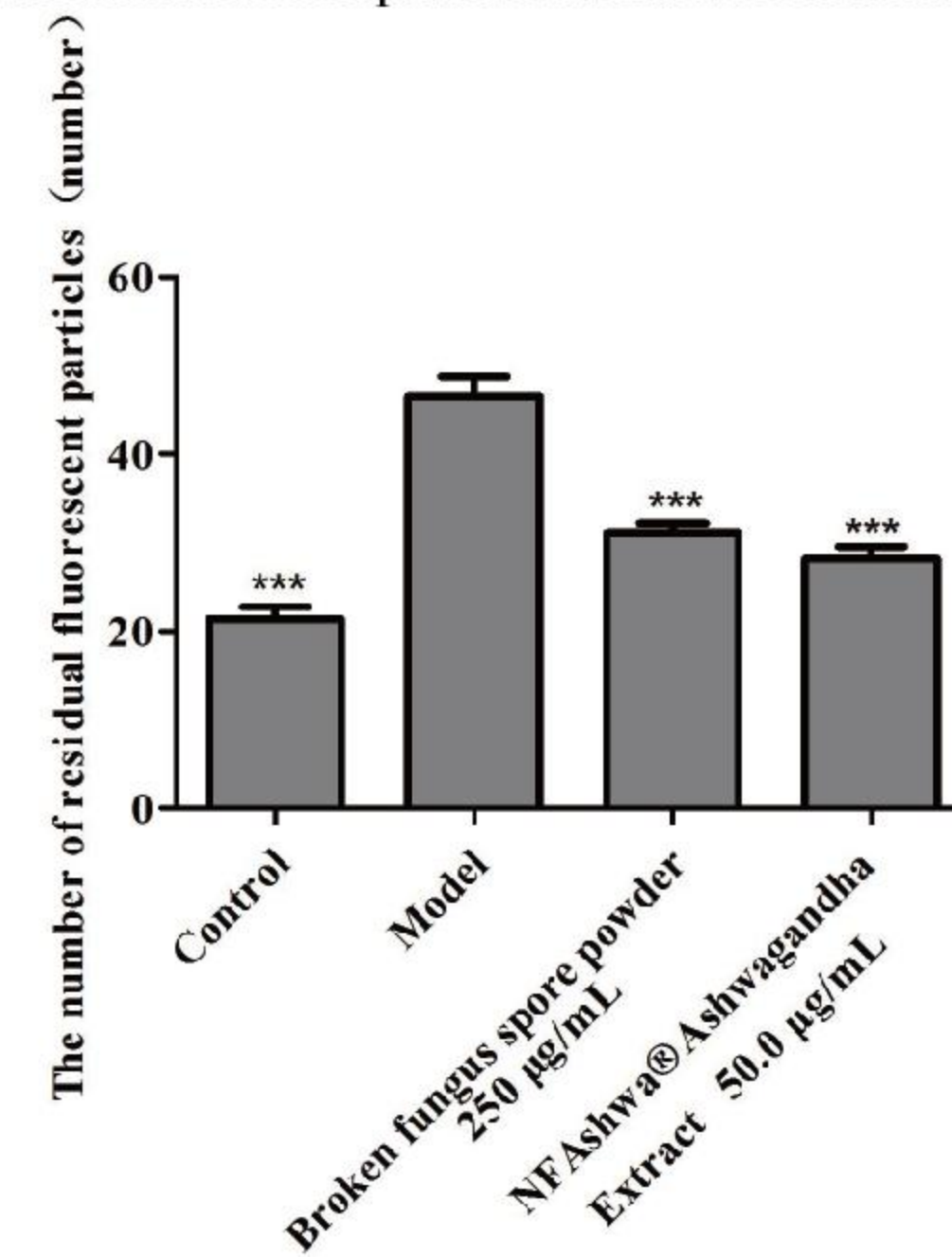


Figure 2. The number of residual fluorescent particles after NF Ashwa® Ashwagandha Extract treatment  
Compared with model group, \*\*\*p < 0.001

It was observed that the number of residual fluorescent particles in zebrafish in the NF Ashwa® Ashwagandha Extract group was significantly reduced compared with the model control group, indicating that NF Ashwa® Ashwagandha Extract has enhanced immune effect.

## Solutions Offered

- Sleep Improvement**  
NF Ashwa® + L-theanine, GABA.
- Immune System Boosting**  
NF Ashwa® + Curcumin, Reishi, Vitamin C.
- Anxiety Relief and Stress Resistance**  
NF Ashwa® + L-theanine, 5-HTP.
- Men's Health**  
NF Ashwa® + Maca Extract, Ginseng Extract, Tribulus Terrestris Extract, Tongkat Ali Extract, Pygeum Africanum Extract, and Horny Goat Weed Extract.

🔍 New products are continuously being launched...