



**FOR IMMEDIATE RELEASE**

**HEALTH SCIENCES AUTHORITY  
PRESS RELEASE  
20 OCTOBER 2017**

## **HSA ALERT: BODYBUILDING PRODUCTS SOLD ONLINE CONTAIN HARMFUL SUBSTANCES**

The Health Sciences Authority (HSA) is alerting members of the public not to purchase or consume three bodybuilding products labelled to contain chemicals still under research and which have not been approved for medical use in Singapore. These chemicals can cause serious harm. The products are sold online by Enhanced Athlete Singapore.

2 The safety profiles of these research chemicals have not been established. For example, one of the chemicals GW501516 (Cardarine) was found to be toxic and has been reported to cause cancers in animal studies. The three products are:

No.	Name of product	Research chemicals on the label
1	Enhanced Athlete Cardarine	GW501516 (Cardarine)
2	Enhanced Athlete Ligandrol	LGD-4033 (Ligandrol)
3	Enhanced Athlete Mutant YK-11	YK-11

Please refer to **Annex A** for pictures of the products.

3 HSA has received feedback that the products, sold locally on social media platforms, are marketed to increase muscle mass and strength as well as enhance athletic performance. Each product is labelled “Not for human use/consumption” and carries warnings of side effects, including serious bodily injury and death. There are no dosing instructions on the product labels. Given these warnings on the label, consumers taking these products are risking their health and safety.

### **ADVISORY TO CONSUMERS**

4 You are advised to:

- Stop taking these products immediately and consult a doctor if you are feeling unwell.
- Avoid using drugs or potent chemicals to enhance athletic performance or to increase muscle mass and strength. The harmful and potentially deadly adverse effects are not worth it.

- Be cautious when purchasing health products online. Do not buy from unknown websites or from persons posting offers on discussion forms or blogs as these products may contain potent ingredients or be counterfeit or substandard.
- Consider buying from websites with an established retail presence in Singapore.
- Visit [www.healthdangers.sg](http://www.healthdangers.sg) to learn more about the dangers of buying health products from dubious sources.

## BACKGROUND ON THE LABELLED RESEARCH CHEMICALS

5 All three labelled chemicals have not been approved for medical use and their safety profiles have not been established. One of them, GW501516 (cardarine), was previously being developed for medical use overseas but it was found to cause cancers in mice and rats during animal safety studies. All subsequent studies on GW501516 were halted in 2006. Due to these safety concerns, the World Anti-Doping Agency (WADA) issued an alert on GW501516 in 2013, which was deemed a '*black market substance*', to warn users of the serious toxicities associated with its use.

## HEALTH SCIENCES AUTHORITY SINGAPORE 20 OCTOBER 2017

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### About the Health Sciences Authority (HSA)

The Health Sciences Authority (HSA) applies medical, pharmaceutical and scientific expertise through its three professional groups, Health Products Regulation, Blood Services and Applied Sciences, to protect and advance national health and safety. HSA is a multidisciplinary authority. It serves as the national regulator for health products, ensuring they are wisely regulated to meet standards of safety, quality and efficacy. As the national blood service, it is responsible for providing a safe and adequate blood supply. It also applies specialised scientific, forensic, investigative and analytical capabilities in serving the administration of justice. For more details, visit <http://www.hsa.gov.sg/>.

For more updates on public health and safety matters, follow us on Twitter at [www.twitter.com/HSAsg](https://twitter.com/HSAsg).

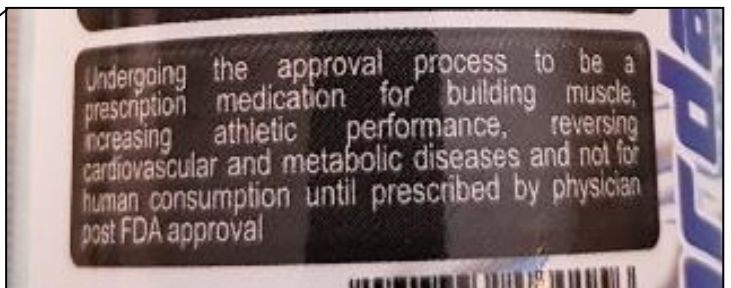
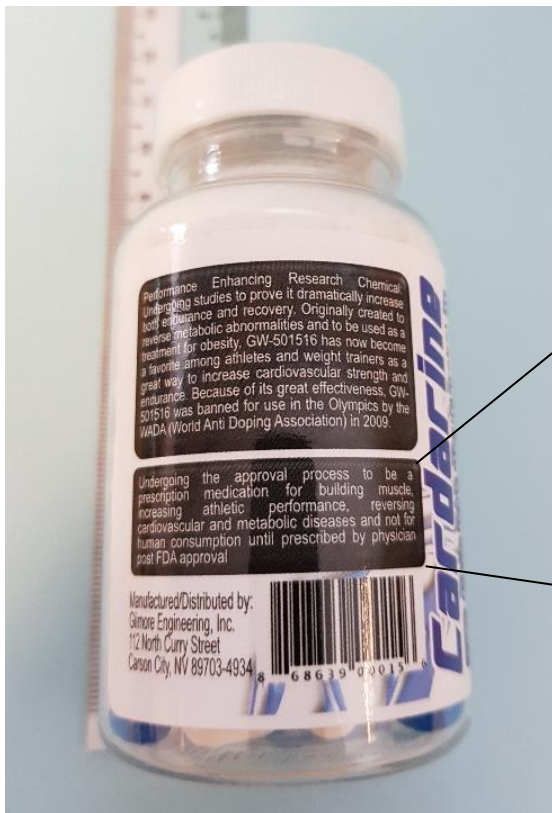
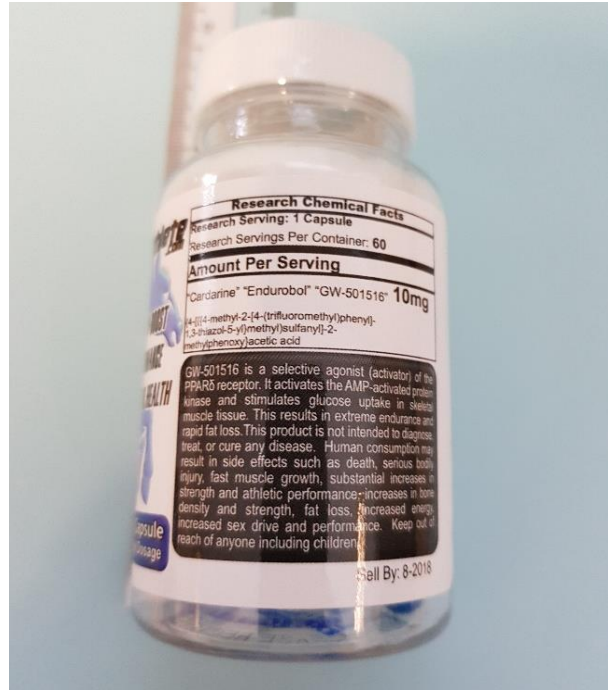
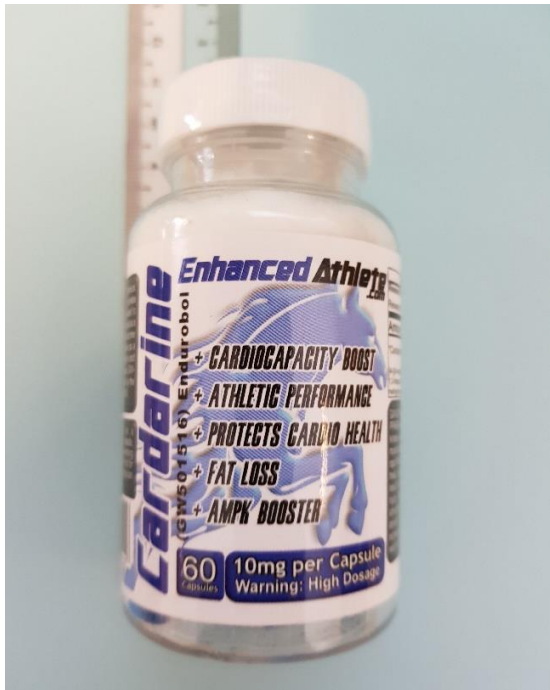
### About HSA's Health Products Regulation Group

The Health Products Regulation Group (HPRG) of HSA ensures that drugs, innovative therapeutics, medical devices and health-related products are wisely regulated and meet appropriate safety, quality and efficacy standards. It contributes

to the development of biomedical sciences in Singapore by administering a robust, scientific and responsive regulatory framework.

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### **Enhanced Athlete Cardarine**



## Enhanced Athlete Ligandrol



Research Chemical awaiting FDA approval. Not for female use. Not for human use until FDA approved and prescribed by your doctor. Keep out of reach of children. Side effects include: Rapid muscle gain, fat loss, strength increases, bone density increase, increased athletic performance, heart attack, stroke, breathing problems, paralysis, low blood pressure, irregular heart rhythm, rapid heart beat, suppression of hormone production, masculinization, acne, diabetes, cancer, kidney and liver failure, seizure, anxiety or agitation, and serious bodily injury and death. Not intended to treat, prevent or cure any disease. As a research chemical, any statements about Ligandrol are not yet approved by the FDA nor is it intended to diagnose, treat, or prevent any disease.



## Enhanced Athlete Mutant YK-11

