

What's Really in the Glow Stack? Composition of Illicit Injectable Peptides Purchased in Australia

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Introduction: Injectable peptides are rapidly emerging within Australia's unregulated enhancement-drug market, where they are increasingly promoted through social media as cosmetic "stacks" for skin, recovery and body composition. The "Glow Stack", typically comprising GHK-Cu, BPC-157 and TB-500, is marketed directly to consumers despite limited evidence of efficacy and no regulatory oversight. This study examined whether products purchased online contained the advertised peptide and labelled dose.

Methods: Four peptide products anonymously submitted to PEDTest Australia between June and July 2026 were analysed by an independent accredited laboratory. Products included two BPC-157 vials labelled as 10 mg, one GHK-Cu vial labelled as 100 mg and one TB-500 vial labelled as 10 mg. Peptide identity and quantity were assessed using high-performance liquid chromatography tandem mass spectrometry, and elemental impurities using inductively coupled plasma mass spectrometry.

Results: Three products contained the expected peptide, but measured content ranged from 43.8% to 79.3% of the labelled amount. The product labelled as containing 10 mg TB-500 contained no detectable TB-500. No arsenic, mercury or lead were detected above reporting limits. Cadmium and nickel were detected only at trace concentrations below accepted exposure thresholds.

Discussions and Conclusions: None of the products matched its labelled dose, and one contained no detectable advertised active ingredient. Although only four products were analysed and sterility, endotoxins and biological contaminants were not assessed, these findings provide some of the first Australian evidence on injectable peptides sold online. Consumers cannot reliably assume either the identity or quantity of injectable peptides purchased through illicit online markets.

Implications on communities, practice, policy and/or First Nations communities: Inaccurate dosing and product substitution may increase adverse-event risks and complicate clinical management following injection of substances of unknown composition. Drug-checking programs can provide early intelligence on emerging peptide markets, support targeted harm-reduction messaging and inform timely public health responses.

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