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Solubility-enhanced gMYL6 fused with a hexa-lysine tag promotes the cytotoxicity of human NK cells

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Highlights

- gMYL6 is a constituent of certain immunization-induced ACBPs.
- Nano-flow liquid chromatography is adopted to sequence gMYL6.
- Polycationic amino acid tag promotes solubility of gMYL6.
- An unrecognized role of gMYL6 on human NK cell function is discovered.
- The gMYL6-6K could be a novel cytokine against cancer.

Abstract: Goat myosin light chain 6 (gMYL6) is a constituent of certain extracted immunization-induced goat anti-cancer bioactive peptides (ACBPs). However, little is known about its activity onto NK cells which are the basic cellular attackers in cancer immunotherapy for patients with malignancies. Because of the complicated extraction process and low yield of gMYL6 out of the goat ACBPs' mixture, the Nano-flow liquid chromatography and C-terminal polycationic tag expression strategy were used