

演講題目: Study of a recombinant type-2 ribosome inactivating protein B-chain, articulatrin B-chain from *Viscum articulatum*

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著作

1. Tzu-Li Lu, Jing-Yuan Chuang, Jai-Sing Yang, Shau-Ting Chiu, Nai-Wan Hsiao, Mei-Chen Wu, Shih-Hsiung Wu and Ching-Hsiang Hsu. Production of Active Nonglycosylated Recombinant B-chain of Type-2 Ribosome-inactivating Protein from *Viscum articulatum* and its Biological Effects on Peripheral Blood Mononuclear cells. *Evidence-Based Complementary and Alternative Medicine*. Volume 2011 (2011), Article ID 283747, 9 pages doi:10.1155/2011/283747
2. Wang YM, Lu TL, Hsu PN, Tang CH, Chen JH, Liu KC, Kao JT, Tzen JT, Wu YY. Ribosome inactivating protein B-chain induces osteoclast differentiation from monocyte/macrophage. *Bone*. (2011) Feb 26. doi:10.1016/j.bone.2011.02.018
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摘要

Type-2 ribosome-inactivating proteins, composed of a toxic A-chain and lectin-like B-chain, display various biological functions, including cytotoxicity and immunomodulation. We here cloned the lectin-like B-chain encoding fragment of a newly identified type-2 RIP gene, *articulatin* gene, from *Viscum articulatum*, into a bacterial expression vector to obtain nonglycosylated recombinant protein expressed in inclusion bodies. After purification and protein refolding, soluble refolded recombinant articulatin B-chain (rATB) showed lectin activity specific toward galactoside moiety and was stably maintained while stored in low ionic strength solution. Despite lacking glycosylation, rATB actively bound leukocytes with preferential binding to monocytes, and *in vitro* stimulated PBMCs to release cytokines without obvious cytotoxicity. These results implicated such a B-chain fragment as a potential immunomodulator.