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CHINESE JOURNAL OF ANIMAL NUTRITION

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动物营养学报 2012, Vol. 24 Issue (7) : 1201-1206 DOI: 10.3969/j.issn.1006-267x.2012.07.003

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整联蛋白及其信号转导途径对骨骼肌生长发育的调控

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Integrin: Regulation of Signal Transduction Pathways on Skeletal Muscle Growth and Development

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摘要 整联蛋白广泛存在于真核细胞的细胞膜表面,是一类 α 、 β 异源二聚体膜受体蛋白,可使细胞黏附于胞外基质并介导来自基质的机械信号和化学信号,并通过细胞膜的双向信号转导作用来调节细胞分化、迁移、免疫、黏附等生物学功能。本文总结了整联蛋白信号途径的功能特点和活化特点,重点阐述了整联蛋白及其介导的信号转导途径对骨骼肌生长发育的调控。

关键词: 整联蛋白 信号转导 骨骼肌生长发育

Abstract: Integrins widely distribute on eukaryotic cell membrane, and are a class of α/β heterodimeric membrane receptor proteins, which can increase cell adhesion to extracellular matrix, mediate mechanical and chemical signals from the matrix, and regulate cell differentiation, migration, immune, adhesion and other biological functions through bio-directional signal transduction of membrane. This article reviewed the function and activation characteristics of integrin signal transduction pathways, and focused on the regulation of integrin and their signal transduction pathways on skeletal muscle growth and development.

Keywords: integrin, signal transduction, skeletal muscle growth and development

收稿日期: 2012-02-08;

基金资助: 国家自然科学基金"钙蛋白酶调控猪体蛋白降解的信号途径研究"(30972112)

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引用本文:

李欣蔚, 张勇. 整联蛋白及其信号转导途径对骨骼肌生长发育的调控 [J]. 动物营养学报, 2012, V24(7): 1201-1206

LI Xinwei, ZHANG Yong. Integrin: Regulation of Signal Transduction Pathways on Skeletal Muscle Growth and Development[J]. Chinese Journal of Animal Nutrition, 2012, V24(7): 1201-1206.

链接本文:

http://118.145.16.228/Jweb_dwyy/CN/10.3969/j.issn.1006-267x.2012.07.003 或 http://118.145.16.228/Jweb_dwyy/CN/Y2012/V24/I7/1201

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