

A Novel Peptide Design Based on Opioid Receptor Epitope Analysis and its Efficacy in Orthopaedic Perioperative Nursing Care

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SUMMARY. Pain is a complex physiological phenomenon. At present, the opioid receptor analgesics are widely used for analgesia in clinic, which have received more and more attention of researchers. The analgesic polypeptides derived from biotoxins have many advantages, such as non-addictive, long-lasting, high safety and so on. It is expected to be developed into new analgesic drugs. The mechanisms of analgesic peptides include ion channels, opioid receptors, kinases and other mechanisms. In this research, the epitope of Dekta opioid receptor was predicated and the novel peptides were designed, followed by the biological evaluation.

RESUMEN. El dolor es un fenómeno fisiológico complejo. En la actualidad, los analgésicos de los receptores opioides son ampliamente utilizados para la analgesia en la clínica, lo que ha recibido cada vez más atención por parte de los investigadores. Los polipéptidos analgésicos derivados de biotoxinas tienen muchas ventajas, como no adictivos, duraderos, de alta seguridad, etc. Se espera que se convierta en nuevos fármacos analgésicos. Los mecanismos de los péptidos analgésicos incluyen canales iónicos, receptores opioides, quinasas y otros mecanismos. En esta investigación, se predijo el epitope del receptor opioide Dekta y se diseñaron los nuevos péptidos, seguido de la evaluación biológica.

KEY WORDS: opioid receptor, orthopaedic perioperative, peptides.

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