

1. Record Nr.	UNINA9910460751403321
Titolo	Vitamins and hormones . Volume ninety-seven Nociceptin opioid // series editor, Gerald Litwack
Pubbl/distr/stampa	Waltham, Massachusetts : , : Academic Press, , 2015 ©2015
ISBN	0-12-802593-X 0-12-802443-7
Edizione	[First edition.]
Descrizione fisica	1 online resource (392 p.)
Collana	Vitamins and Hormones, , 0083-6729 ; ; Volume 97
Disciplina	612.015756
Soggetti	Neuropeptides Opioid peptides Nociceptive pain Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Front Cover; Nociceptin Opioid; Copyright; Contents; Contributors; Preface; Chapter 1: Helix-Constrained Nociceptin Peptides Are Potent Agonists and Antagonists of ORL-1 and Nociception; 1. Nociception in Brief; 1.1. Opioid receptor-like receptor-ORL-1; 1.2. Nociceptin; 1.3. Interrogating the activation and address domains of nociceptin(1-17); 2. Prospecting the Importance of the N-Terminal Tetrapeptide of Nociceptin(1-17); 3. Other Modifications to Nociceptin(1-17); 4. The Importance of Structure in Nociceptin Analogues; 4.1. Importance of helicity; 4.2. Other nociceptin derivatives 5. Recent Advances in ORL-1 Active Nociceptin Peptides 6. The Development of New Helix-Constrained Nociceptin Analogues; 6.1. Design of helix-constrained nociceptin analogues; 6.2. Helical structure of nociceptin(1-17)-NH ₂ analogues in water; 6.3. Nuclear magnetic resonance spectra-derived structures; 7. Biological Properties of Helical Nociceptin Mimetics; 7.1. Cellular expression of ORL-1 and ERK phosphorylation; 7.2. Agonist and antagonist activity of nociceptin(1-17)-NH ₂ and analogues; 7.3. Effects of helical constraint on biological

activity in Neuro-2a cells

7.4. Stability and cell toxicity of helix-constrained versus unconstrained peptides
7.5. In vivo activity of helix-constrained versus unconstrained nociceptin analogues; 8. Concluding Remarks; References; Chapter 2: Bioinformatics and Evolution of Vertebrate Nociceptin and Opioid Receptors; 1. Introduction; 1.1. The origin of G protein-coupled receptors; 1.2. A brief history of opioid receptors; 1.3. Evidence for opioid receptors in nonmammalian vertebrates; 2. The Vertebrate Opioid Receptor Sequence Database; 2.1. Alignment of protein sequences

2.2. Phylogenetic analysis of vertebrate opioid receptors
2.3. Divergence and convergence of opioid receptor types; 3. The Human Genome and the Evolution of Opioid Receptors; 3.1. Duplicated opioid family receptor genes in the human genome; 3.2. Variation in human opioid receptor genes; 4. The Molecular Evolution of Vertebrate Opioid Family Receptors; 5. Future Directions; 6. Conclusions; Acknowledgments; References; Chapter 3: Ancestral Vertebrate Complexity of the Opioid System; 1. Introduction; 2. Opioid Peptide Family; 3. Opioid Receptor Family

4. Discussion: Complexity, Coevolution, and Divergence
5. Conclusions; Acknowledgement; References; Chapter 4: Synthesis and Biological Activity of Small Peptides as NOP and Opioid Receptors' Ligands: View on Current Devel...; 1. Introduction; 2. Endogenous Opioid Peptides and Receptors: Nociceptin and NOP Receptor Ligands; 3. Hexapeptides with NOP Receptor Affinity; 4. Solid-Phase Peptide Synthesis; 5. Conclusions; Acknowledgment; References; Chapter 5: Pain Regulation by Nocistatin-Targeting Molecules: G Protein-Coupled-Receptor and Nocistatin-Interacting Protein; 1. Introduction

2. Biological Activity by NST Through G Protein-Coupled Receptor

Sommario/riassunto

First published in 1943, *Vitamins and Hormones* is the longest-running serial published by Academic Press. The Series provides up-to-date information on vitamin and hormone research spanning data from molecular biology to the clinic. A volume can focus on a single molecule or on a disease that is related to vitamins or hormones. A hormone is interpreted broadly so that related substances, such as transmitters, cytokines, growth factors and others can be reviewed. This volume focuses on nociceptin opioid. Key features: Expertise of the contributors
Coverage of a vast array of subjects
