Hexarelin is a peptide that can promote the secretion of certain hormones. It is a hexapeptide that consists of six amino acids that can release certain hormones as they are needed. It has a half-life of about 70 minutes.

**Hexarelin’s Mechanics**

Hexarelin’s mechanics behind its functionality is currently unknown. However, it has been determined that the peptide acts on two parts of the brain region in animal test subjects:

- **The pituitary gland** – The pea-sized gland that regulates the endocrine system.

- **The hypothalamus** – The part of the brain that acts as a link between the endocrine system and the nervous system.

Despite the unknown nature of Hexarelin’s mechanics, scientific studies have been conducted on animal test subjects to determine its effects. These studies have derived several different effects linked to its use, including elevated levels of fat loss, connective tissues, density of bone minerals, meiosis, mitosis, and elasticity. In turn, these effects have led to animal test subjects experiencing improved endurance, joint rehabilitation, wound healing, and improved muscle strength. Studies also conclude that Hexarelin’s functionality can last a long stretch of time.

Furthermore, scientific studies on animal test subjects have determined that Hexarelin does not induce an increased desire for food consumption. The peptide achieves this because it does not increase the levels of ghrelin; the amino acid peptide that clears out the gastric system and induces hunger.

Further scientific studies have also determined that the peptide promotes an increase in the secretion of IGF-1 from the liver of animal test subjects. This additional secretion plays a key role in breaking down fat and improving strength.

While it is known that Hexarelin’s functionality is associated with acting upon specific parts of the brain, its effects on the brain have yet to be determined.

**The Heart and Hexarelin**

Scientific study on animal test subjects has determined that there seems to be a link between the peptide and the heart. This research suggests that the peptide could include specific properties that cause certain effects that protect the heart.

Specifically, these finding were based on a study using lab rats with certain hormone deficiency in comparison to other lab rates. The purpose of the study was to determine if an administered dose of Hexarelin could lower the
risk of cardiac dysfunction; a condition that had been determined to be a side-effect of select certain hormone deficiencies.

As part of the study, several lab rates had their pituitary glands removed and given Hexarelin for a week. Throughout the study, the injections were determined to prevent an increase of left ventricular pressure in the heart. Furthermore, it was determined to lessen reactivity of the coronary vasculature to angiotensin II and coronary perfusion pressure. It was also determined that the peptide could inhibit the release levels of prostacyclin while the heart contracted.

These conclusions indicated a strong instance of the peptide being able to lessen the damage that can occur to the cardiovascular system when it occurs as part of a certain hormone deficiency. While this conclusion is currently rooted in clinical research, additional study may eventually produce a use for Hexarelin in relation for preventative care for growth-hormone issues relating to cardiovascular-based issues, such as recovery after a heart attack.

Other Determinations Concerning Hexarelin

Although scientific study on animal test subjects has derived several positive outcomes, there have been a few negative side effects which have been linked to the peptide’s use. This includes water retention, bone pain, muscle pain, and elevated diabetes risk.

Additionally, other studies built around animal test subjects have been conducted in relation to Hexarelin’s functionality. For example, some studies have been conducted to study the potential protective effect the peptide may have on the central nervous system after an injury. The basis of this study is a direct link to how Hexarelin acts on the hypothalamus. Other studies built around Hexarelin’s functionality include:

- Caspase 3 – This particular protein has been determined to be a vital and essential component in normal brain development in addition to its typical function in apoptosis.

- Akt – Also referred to as protein kinase B, this protein controls cellular survival and regulates metabolism.

- Extracellular signal-regulated kinases – These particular protein molecules are essential tools in the regulation of meiosis, mitosis, and postmitotic functions within differentiated cells.

It should be noted that all studies and findings that are related to Hexarelin have been due to scientific research conducted on animal test subjects. Any research relating to Hexarelin and its functionality should be contained to the restrictions of a strictly controlled environment such as a laboratory or a clinical research facility.