CYREX® Laboratories

CLINICAL SPECIFICATIONS

GLUTEOMORPHIN (saliva)

Function:

Gluteomorphin, also known as, Gliadorphin, is an opioid peptide formed from undigested Gliadin from gluten protein.

Associated With:

Loss of oral tolerance

Known Cross-Reactions:

Clinical Significance:

The presence of salivary antibodies to Gluteomorphin is an indication of loss of mucosal tolerance and the onset of food immune reactivity. The production of antibodies to gluteomorphin may be indicative of a lack of the enzyme dipeptidyl peptidase (DPPIV). When a patient has intestinal dysfunction or intestinal permeability, these small, undigested molecules may enter the blood stream, and, if blood-brain barrier permeability exists, pass through the blood-brain barrier. In the brain, Gluteomorphins can directly interfere with neuronal messaging by binding to the opioid receptors thus inhibiting the natural binding of neurotransmitters to their receptors.[1, 2, 3, 4] In addition, lymphocytes carry the same receptors on their own surfaces; therefore, Gluteomorphins can indirectly interfere with opioid receptors through lymphocyte secretion of cytokines and causing the delivery of wrong messages to the brain.[3, 4] If antibodies are produced to Gluteomorphin, these antibodies act like the natural opioids, on the lymphocytes and the nerve cells causing neuro-immune abnormalities. Thus, Gluteomorphin can disturb neuro-immune communication through neurotransmitters and cytokines.

Suggested Reading:

1. Cosford. PANDAS (pediatric autoimmune neuropsychiatric disease associated with Streptococcus) in autism? Electronic Appl Psychol, 2009; 5(1):39-48.
2. Vojdani, et al. The immunology of gluten sensitivity beyond the intestinal tract. Eur J Inflammation, 2008; 6(2):47-57.
3. Vojdani, et al. Immune response to dietary proteins, gliadin and cerebellar peptides in children with autism. Nutr Neurosci, 2004; 7(3):151-161.
4. Vojdani, et al. Infections, toxic chemicals and dietary peptides binding to lymphocyte receptors and tissue enzymes are major instigators of autoimmunity in autism. Intl J Immunopathol Pharmacol, 2003; 16(3):189-199.

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