New recombinant protein for the diagnosis of multiple sclerosis

Description:

Multiple sclerosis (MS) is a chronic inflammatory and demyelinating disease of the central nervous system (CNS), presumably autoimmune. The clinical diagnosis of MS is complex. This is performed taking into consideration the existence of clinical criteria of spatial spread (symptoms and signs that indicate the existence of two independent lesions in the CNS) and of temporal spread (two or more episodes of neurological dysfunction). Nerve conductivity studies of the optic, sensory, and motor nerves are also commonly performed. The diagnostic process is completed with testing to exclude other conditions that can mimic sclerosis. So far, the paraclinical test par excellence to confirm the diagnosis of MS is the presence of oligoclonal bands (OCBs) in cerebrospinal fluid, produced by cells located in the subarachnoid space that give rise to intrathecal synthesis of IgG and whose detection method is more Sensitive is isoelectric focusing on polyacrylamide gel. As a treatment for this disease, numerous drugs have been developed, the most widely used being interferon beta (IFNß). This protein exerts its biological activity through interaction with the IFNAR surface receptor formed by IFNAR1 and IFNAR2. The authors of this patent have found an alternative paraclinical test consisting of a qualitative ELISA to determine IFNAR2.3 in serum.

Keywords:
Genetics, Diagnosis, Sclerosis

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Areas:
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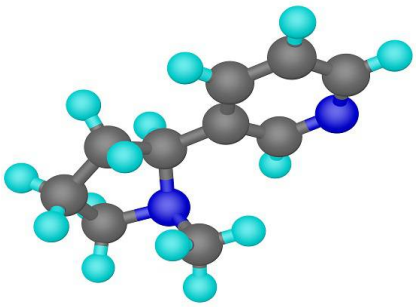

Advantages:

Among the advantages of this invention we can find: • New paraclinical test that manages to diagnose individuals with MS in a much less invasive and safer way, without the need to perform a lumbar puncture on the patient. • The cloning and purification of the IFNAR2.3 protein has been obtained, so that it can serve as a positive control to include in the assay • The methodology has been validated and optimized, determining soluble IFNAR2 values in serum from MS patients and healthy controls.

Uses and Applications:

The present invention relates to: - Recombinant protein for the diagnosis of multiple sclerosis. - Antibodies and compositions related to said recombinant protein and their uses. - Diagnostic method and kit that implements said diagnostic method.

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