Interferon-beta (IFN-β) ELISA

Studying pharmacokinetics, Multiple Sclerosis therapy and antiviral properties

IFN-β is an anti-inflammatory cytokine and involved in the regulation of immune responses against viral infections. Historically interferons have been detected and measured by their unique ability to confer viral resistance to cells. Although the levels of human IFN-β have been determined based on the inhibition of the cytopathic effect of viruses on human cells, the bioassay cannot discriminate between the various types of interferons (alpha, beta, and gamma). It is interesting that due to its inhibitory effects on inflammation, IFN-β represents one of the first line treatments for multiple sclerosis (MS). Commercially available IFN-β drugs are recombinant and slightly modified proteins; either IFN-β-1a or IFN-β-1b. Our IFN-β ELISA is able to detect IFN-β-1a and therefore applicable for studying pharmacokinetics or multiple sclerosis therapy.

Assay features

- New standard for sensitivity and reliability in the measurement of human IFN-β
- Specific to biologically active human IFN-β; overcomes the lack of specificity of the bioassay
- Designed to measure IFN-β-1a accurately
- Calibrated against NIH reference
Applicable for studies such as:

- Process control of human IFN-β production
- Pharmacokinetics of human IFN-β
- Detection of low levels of IFN-β; that may be present before viral infection or autoimmunity
- Monitoring IFN-β-1a treatment in patients with multiple sclerosis


Khan OA et al.; Serum interferon beta-1a (Avonex) levels following intramuscular injection in relapsing-remitting MS patients; Neurology. 1998 Sep;51(3):738-42.

Rudick RA et al.; In vivo effects of interferon beta-1a on immunosuppressive cytokines in multiple sclerosis; Neurology. 1998 May;50(5):1294-300