Pacific Biomarkers
The Value of Expertise

IL-17F (Interleukin-17F), ultrasensitive

Analyte: Interleukin-17F

Specimen Type: EDTA Plasma

Optimum Volume: 0.5 mL

Stability:

2-8 Degrees C	-20 Degrees C	-70 Degrees C
3 days	TBD	TBD

Reporting Units: pg/mL

Method: Fluorescent Immunoassay

Biological or Clinical Significance:

The IL-17F gene was discovered in 2001, and is located on chromosome 6p12. Notably, among this family, IL-17F has been well characterized both in vitro and in vivo, and has been shown to have a pro-inflammatory role in asthma. IL-17F is clearly expressed in the airway of asthmatics and its expression level is correlated with disease severity. Moreover, a coding region variant (H161R) of the IL-17F gene is inversely associated with asthma and encodes an antagonist for the wild-type IL-17F. IL-17F is able to induce several cytokines, chemokines and adhesion molecules in bronchial epithelial cells, vein endothelial cells, fibroblasts and eosinophils. IL-17F utilizes IL-17RA and IL-17RC as its receptors, and activates the MAP kinase related pathway. IL-17F is derived from several cell types such as Th17 cells, mast cells and basophils, and shows a wide tissue expression pattern including lung. Overexpression of IL-17F gene in the airway of mice is associated with airway neutrophilia, the induction of many cytokines, an increase in airway hyperreactivity, and mucus hypersecretion. Hence, IL-17F may have a crucial role in allergic airway inflammation, and have important therapeutic implications in asthma.

Principle of Test Method:

The IL-17A immunoassay is a quantitative fluorescent sandwich immunoassay designed to measure IL-17A in human serum or EDTA plasma samples. The detection system employs a single molecule counting (SMC™) technique that enables ultrasensitive biomarker measurement.

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