Quantify Neutrophil Extracellular Traps by ELISA

Key Information:
- Quantify NETs in human samples with a newly introduced research use only ELISA
- Detect fragments of NETs that remain after incomplete digestion

Introduction
Cayman's Neutrophil Extracellular Trap (MPO-Histone) ELISA Kit (Item No. 501340) measures the amount of MPO in soluble NET fragments from human biological samples. To generate an MPO standard curve, the assay employs an anti-MPO capture antibody and a non-competing HRP-conjugated anti-MPO detection antibody, along with a human MPO standard. For quantifying NET fragments in test samples, the assay employs an anti-citrullinated histone H3 capture antibody and the same HRP-conjugated anti-MPO detection antibody used for the standard curve. The assay results generated are reported as ng/ml of NET fragment-associated MPO.

![Graph showing NET-associated MPO levels in healthy volunteers and RA patients](image)

Cayman's new Neutrophil Extracellular Trap (MPO-Histone) ELISA Kit was used to assess human serum samples obtained from reportedly healthy volunteers (n = 25) or from patients with ACPA-positive rheumatoid arthritis (RA patients, n = 9). The samples were diluted at 1:5 in the assay buffer provided in the assay kit and tested without any further purification or treatment. The results indicate a higher level of NET-associated MPO in the RA patients compared to the healthy volunteers.