

**CORRELATION OF *NERVE GROWTH FACTOR* (NGF) IN
SEMINAL PLASMA WITH THE QUALITY OF
MADURA CATTLE SPERMATOZOA**

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ABSTRACT

The aim of this study is to determine the correlation between NGF seminal plasma with Madura cattle spermatozoa quality, includes motility, viability, plasma membrane integrity, and spermatozoa concentration. The seminal plasmas of Madura cattle have biochemical components such as carbohydrates, fats, proteins, peptides, and ions. Characterization of NGF seminal plasma protein of Madura cattle was done using sodium dodecyl sulfate polyacrylamide gel electrophoresis (SDS-PAGE) assay. The NGF level was measured under Indirect ELISA technique. The result of SDS-PAGE analysis found 8 protein bands in seminal plasma with different molecular weight. The molecular weight of 15.24 kD is thought to be the NGF protein present in the seminal plasma. The mean of NGF levels in seminal plasma of 10 measure cattle in this study were 0.29 ± 0.15 ng /ml. NGF in seminal plasma of Madura cattle was positively correlated with spermatozoa motility ($P < 0.05$) and did not correlate significantly with viability, MPU, and spermatozoa concentration ($P > 0.05$).

Keywords: NGF, Seminal Plasma, Madura cattle, spermatozoa, proteins