

**INHIBITORY EFFECT OF HYALURONIDASE AND DPPH RADICAL  
SCAVENING ACTIVITY USING EXTRACTION OF *EQUISETUM ARVENS*****Man Kyu Huh**Department of Molecular  
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**KOREA****ABSTRACT**

Hyaluronidase (HAase, EC.3.2.1.35) is an enzyme that depolymerizes the polysaccharide hyaluronic acid (HA) in the extracellular matrix of connective tissue. The 1, 1- diphenyl 2-picrylhyorazyl (DPPH) is a well-known radical and a trap (scavenger) for other radicals. The purpose of the present study is to evaluate plant extracts as sources of natural antioxidants and to examine whether the herbal medicine (*Equisetum arvense* L.) having significant hyaluronidase inhibitory activity. The inhibitory effect of HAase by *E. arvense* was assayed using a Morgan microplate assay. The antioxidant activity of the *E. arvense* extracts was measured on the basis of the scavenging activity of the stable 1, 1- diphenyl 2-picrylhyorazyl (DPPH) free radical. HAase inhibition of foliage and central stalk was 24.3% at 4.0 mg/ml and that of rhizomatous stem and root was 27.3% at same concentration. DPPH scavenging activity of *E. arvense* was evaluated 96.2% at 4.0 mg/ml foliage and central stalk. DPPH scavenging activity for rhizomatous stem and root was 94.7% at same concentration.

**Keywords:** *Equisetum arvense* L., Hyaluronidase (HAase), 1, 1- diphenyl 2-picrylhyorazyl (DPPH).