



## **Antioxidant peptidic components derived from epidermal mucus of *Neogobius fluviatilis pallasii***

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### **Abstract:**

Reactive oxygen species (ROS) that are produced during cellular respiration in aerobic organisms, has been implicated in several human diseases, including heart disease, neurodegenerative disorders, Alzheimer', Parkinson, stroke, diabetes and cancers. Due to the potential health hazards of synthetic antioxidants, the search for safe natural antioxidants is important. This research describes the antioxidant activity of the epidermal exudates and its size-based fractionations of Caspian sand goby, *Neogobius fluviatilis pallasii* for the first time. The results showed 5> kDa fraction exhibited the highest scavenging activity against ABTS and DPPH free radicals (5.55 and 7.5  $\mu$ M Trolox E, respectively) but the results about FRAP was various. Overall, these finding propose that fish skin mucus contains many kinds of novel bioactive peptides with potential applications in aquaculture and medicine.

**Keywords:** Antioxidant, peptidic components, mucus, *Neogobius fluviatilis pallasii*