

**AKTIVITAS DAN STABILITAS ANTIOKSIDAN EKSTRAK PIGMEN ALGA**  
***Oscillatoria* sp. (antioxidant activity and Stability of Pigment Extracted from algae**  
***Oscillatoria* sp.)**

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| <b>Title</b>          | AKTIVITAS DAN STABILITAS ANTIOKSIDAN EKSTRAK PIGMEN ALGA <i>Oscillatoria</i> sp. (antioxidant activity and Stability of Pigment Extracted from algae <i>Oscillatoria</i> sp.)   |
| <b>Author Order</b>   | of  |
| <b>Accreditation</b>  |   |
| <b>Abstract</b>       | <p>The pink pigment has been isolated from <i>Oscillatoria</i> algae cell. The pigment showed physicochemical properties similar to phycoerythrin produced by red algae. The aims of this study were to evaluate antioxidant activity and stability of the pigment at various pH and temperature. The pigment was diluted using 20 mM phosphate buffer at different pH of 6, 7, and 8 and incubated at various temperature of 28, 40, 70, and 100 c. antioxidant activity and stability of the pigment were determined using ferric thiocyanate method and thiobarbituric acid test. The result showed that antioxidant activity of the pigment was stable at pH 7 and temperature 28o c, and the antioxidant stability tend to decrease when the pH buffer solution change to acid or alkali and increasing of temperature. Keywords: algae, <i>Oscillatoria</i> sp., natural pigment, phycobilliproteins, antioxidant</p> <p>ABSTRAK <i>Oscillatoria</i> <i>Oscillatoria</i> adalah salah satu jenis alga yang banyak tumbuh di perairan tawar maupun laut. Isolasi pigmen dari ekstrak alga ini diperoleh pigmen berwarna ungu yang memiliki sifat fisikokimia mirip dengan pigmen fikokoitrin yang ada pada alga merah. Penelitian ini bertujuan untuk menguji aktivitas dan stabilitas antioksidan ekstrak pigmen <i>Oscillatoria</i> terhadap suhu dan pH yang berbeda. Stabilitas antioksidan pigmen diuji dengan memperlakukan ekstrak pigmen pada pelarut buffer fosfat 20 mM dengan variasi pH 6, 7, dan 8 serta suhu pemanasan 28, 40, 70, dan 100 °C. aktivitas antioksidan pigmen diukur menggunakan metode fTc dan TBa. Hasil penelitian menunjukkan bahwa aktivitas antioksidan pigmen pigmen <i>Oscillatoria</i> stabil pada pH 7 dan suhu 28 °C, namun aktivitasnya cenderung menurun saat pH buffer medium berubah menjadi asam maupun basa dan suhu yang semakin meningkat. Kata kunci: alga, <i>Oscillatoria</i> sp., pigmen alami, fikokobilliprotein, antioksidan</p> |
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