

Njue W.N., H.J. Liu, P.N. Olley (1990) Photolabelling of Prostaglandin E2 receptor in cardiac sarcolemmal vesicles: FEBS Lett 265, 117 - 120..

### **Abstract**

A [3H]azidophenacyl ester of PGE2 ([3H]azido-PGE2) was synthesized and used to photoaffinity label the protein component of the high affinity PGE2 binding site in cardiac sarcolemma membrane. Photolysis of the isolated cardiac sarcolemmal vesicles in the presence of [3H]azido-PGE2 resulted in the covalent labelling of a protein component that migrated on sodium dodecyl sulfate-polyacrylamide gels with an apparent molecular weight of 100,000. Incorporation of the [3H]azido-PGE2 did not occur in the absence of photolysis. The photolabelling of the 100-kDa protein by [3H]azido-PGE2 was inhibited by excess unlabelled PGE2 and azido-PGE2. Specific binding of [3H]azido-PGE2 was displaced by excess unlabelled PGE2 or azido-PGE2, but not PGF2 alpha, 6-keto-PGF1 alpha or PGD2. These results indicate that the 100-kDa photoaffinity labelled [3H]azido-PGE2 binding protein contains the binding site for PGE2 in isolated cardiac sarcolemma membranes.