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## **EHop 167 Innovator Molecule Against Cancer**

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### **ABSTRACT**

Cancer cells have a high activity of different proteins, among them Rac. Rac is from the Rho family of GTPases enzymes, which helps the cell invasion and migration. In order to study different strategies to decrease the high activity of this protein, we used EHop 167, a small molecule that helps to inhibit the activation of Rac. On this we can expose that EHop 167 can inhibits Rac activity and over expression with MDA-MB-231 breast cancer cell line derived from metastasis. If we used EHop 167 to treat breast cancer cells, then the Rac activity will be less and decrease cells invasion and migration. In the treatment we added to the cells a concentration of 2.5 $\mu$ M and 5 $\mu$ M of the molecule (EHop167) for a period of 24 hours. We also study other proteins such as Bad, BCL 2, BCL XL, Pak, and others, because they contribute to cancer by promoting growth and preventing apoptosis. Using different procedures such as Western Blot technique, an analytical technique used to detect specific proteins and their activity. The objective of this investigation is to prove that EHop 167 prevents the Rac activation in breast cancer cells. In overall, we pursue to develop a different method that could be effective against metastatic cancer.

**Keywords:** *Rac, EHop167, MDA-MB-231*

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