

Peptide Ligand Specific for c-Met

TECHNOLOGY NUMBER: 2019-013

OVERVIEW

Diagnostic imaging peptide for early stage colon cancer

- Fluorescent peptidergic probe against c-Met
- Improves accuracy of colonoscopy results

BACKGROUND

Colon cancer results in over 700,000 global deaths every year and 1.4 million new cases. Early diagnosis has the greatest impact on overall survival in colon cancer patients, given that colon cancer typically develops from precancerous polyps which can grow in the colon for years before becoming cancerous. The main goal of screening is to find these polyps before they turn into cancer or to detect colon cancer in its early stages when treatment is most effective. Colonoscopy is the gold standard employed to screen for colon cancer. Unfortunately, colonoscopy relies on white light to visualize pre-malignant lesions, a challenging task considering roughly 35% of these lesions are flat. This limitation can give rise to false negative results, leading to colon cancer progression. As such, a need exists for improved methods to optimize the beneficial effect of screening with colonoscopy.

INNOVATION

Peptide Ligand Specific for c-Met addresses the major issue of under detection of colon cancer during colonoscopy. It specifically labels the pre-malignant lesions with a fluorescent marker and allows for accurate diagnosis and differentiation between cancerous and normal tissue. Colon cancer characteristically expresses high levels of a protein called c-Met. This technology uses this knowledge to specifically label c-Met protein with a fluorescent probe. Preliminary data shows not only the ability to detect cancerous tissue but the ability to retain specificity with limited labeling of normal tissue. Ultimately, this technology enables the accurate detection and diagnosis of pre-malignant to malignant lesions in the colon and will significantly impact the course of colon cancer prognosis.

PATENT APPLICATION

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Category

Diagnostics
Life Sciences

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