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(54) Title: NOVEL DIAGNOSTIC MARKER FOR PROSTATE CANCER

(57) Abstract: The invention provides a compound characterized by formula I: X1-Trp-Glu-Gly-Asn-X2, wherein cleavage of the compound into a fragment 1 comprising X1 and a fragment 2 comprising X2 generates a detectable signal. The invention further provides an in vitro method for detecting protease activity in a subject's body fluid, comprising contacting the body fluid with the compound of the invention and detecting a signal, wherein the body fluid may comprise a hydrolytic enzyme derived from prostate cancer cells. Furthermore, the invention provides a kit comprising the compound of the invention and a measurement buffer. In addition, the invention provides the use of the compound, the in vitro method or the kit of the invention for the detection of prostate cancer, or for monitoring a subject that is suspected of having prostate cancer, has an increased risk of developing prostate cancer, or has had prostate cancer. The invention also provides the use of the compound of the invention in a method of treating prostate cancer, the method comprising carrying out the in vitro method for detecting protease activity in a subject's body fluid, and treating prostate cancer in a subject for which protease activity, has been detected.

WO 2021/246883 A1