

Claims

1. A compound characterized by formula 1:
X1- Trp-Glu-Gly-Asn-X2 (formula 1),
5 wherein cleavage of the compound into a fragment 1 comprising X1 and a fragment 2 comprising X2 generates a detectable signal.
2. The compound according to claim 1, wherein the sequence Trp-Glu-Gly-Asn is accessible for a hydrolytic enzyme, in particular a hydrolytic enzyme cleaving the compound into X1-
10 Trp-Glu-Gly-Asn--OH (fragment 1) and NH₂-X2 (fragment 2).
3. The compound according to claim 1 or 2, wherein X1 comprises or consists of a component C1 and X2 comprises or consists of a component C2, and the detectable signal is generated upon spatial separation of C1 and C2.
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4. The compound according to any of claims 1 to 3, wherein one of C1 and C2, in particular C2, is a chromophore having an absorption maximum 1 (AM1) at a wavelength 1, and the compound has an absorption maximum 2 (AM2) at a wavelength 2 that is different from wavelength 1.
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5. The compound according to any of claims 1 to 4, wherein C1 and C2 are a pair of a fluorescence donor and a fluorescence acceptor.
6. The compound according to any of claims 1 to 5, wherein the pair of C1 and C2 is selected
25 from the group consisting of 2-aminobenzoic acid (ABZ)/pNA, ABZ/ANB-NH₂, ABZ/DNP, ABZ/EDDNP, EDANS/DABCYL, TAM/DANSYL, ABZ/Tyr(3-NO₂), in particular the pair of C1 and C2 is selected from ABZ/pNA and ABZ/ANB-NH₂.
7. An *in vitro* method for detecting protease activity in a subject's body fluid, comprising
30 contacting the body fluid with the compound according to any of claims 1 to 6 and detecting a signal, wherein the body fluid may comprise a hydrolytic enzyme, in particular a protease, derived from prostate cancer cells.

8. The *in vitro* method according to claim 7 for detecting the presence or absence of prostate cancer in a subject, wherein the presence of protease activity in the body fluid indicates the presence of prostate cancer and the absence of protease activity in the body fluid indicates the absence of prostate cancer.
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9. The *in vitro* method according to claim 7 or 8 for the diagnosis of prostate cancer.
10. The *in vitro* method according to any of claims 7 to 9, wherein the body fluid is urine.
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11. The method according to any of claims 7 to 10, wherein the compound is provided at a concentration of 0.1-10 mg/ml, particularly 0.25-7.5 mg/ml, more particularly 0.5-5 mg/ml, more particularly 0.75-2 mg/ml, even more particularly about 1 mg/ml, in a measurement buffer having neutral or alkaline pH, preferably physiological pH, and the body fluid sample is added to the compound at a ratio of 1:2 to 1:10, particularly 1:3 to 1:8, more particularly
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- 1:4 to 1:6, even more particularly about 1:5.
12. The method according to any of claims 7 to 11, wherein detecting the signal comprises measuring absorbance or fluorescence, particularly measuring absorbance intensity at 300-500 nm, more particularly 380-430 nm, preferably for 40-60 min at 25-40°C, in particular
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- at 36-38°C.
13. A kit comprising a compound according to any of claims 1 to 6 and a measurement buffer.
14. Use of the compound according to any of claims 1 to 6, the methods of any of claims 7 to
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- 12 or the kit according to claim 13 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.
15. The compound according to any of claims 1 to 6 for use in a method of treating prostate
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- cancer, the method comprising the steps of:
- carrying out the method according to any of claims 7 to 12, and
 - treating prostate cancer in a subject for which protease activity, in particular increased protease activity has been detected in step a.