Protease Active Site Solutions

ProteaseTags™
Smart tools to detect active protease biomarkers of disease
Cross platform capabilities
ProAxs is developing a range of rapid, easy-to-use tests which incorporate their patented “ProteaseTag™” technology. Active proteases have been extensively validated as biomarkers of disease activity in areas such as cancer and infection, in addition to respiratory diseases such as CF and COPD.

ProteaseTag™

ProteaseTag™ are smart molecules which uniquely trap an ACTIVE protease within a complex biological sample and provide a visual readout of its presence.

ProteaseTag™ have been developed to a range of protease classes, including serine, metallo- and cysteine proteases.

ProteaseTag™ can be incorporated into a range of technology platforms e.g. activity-dependent immunoassays (ELISA) for target validation, biomarker analysis and drug discovery through to rapid test systems such as lateral flow devices or biosensors to enable the routine monitoring of patients at Point of Care.

Key Benefits
ProteaseTag™ inactivate a specific protease and may be used as tools to specifically detect and quantify the activity of a single protease species within a complex biological sample.

- Unlike antibodies, ProteaseTag™ are selective for the active protease and are species-blind.

- ProteaseTag™ not only inhibit/capture active proteases, but are designed to form a bridge to a solid support allowing them to be combined with established technology platforms such as ELISA, lateral flow or multianalyte biochips.

- Our assays specifically detect active proteases without utilising chromogenic or fluorogenic substrates which are frequently not specific when added to crude biological samples containing multiple proteolytic and hydrolytic proteinases.

Validation of ProteaseTags™
ProteaseTag™ technology has been validated in a wide range of complex biological fluids, including:

- Clinical samples such as sputum, bronchoalveolar lavage, blood and wound exudates.
- In addition, cell conditioned media, tumour homogenates, bacterial lysates and biofilm cultures, amphibian secretions and venoms.