

Proteomics at AgResearch

Peptidomics and bioactive peptides

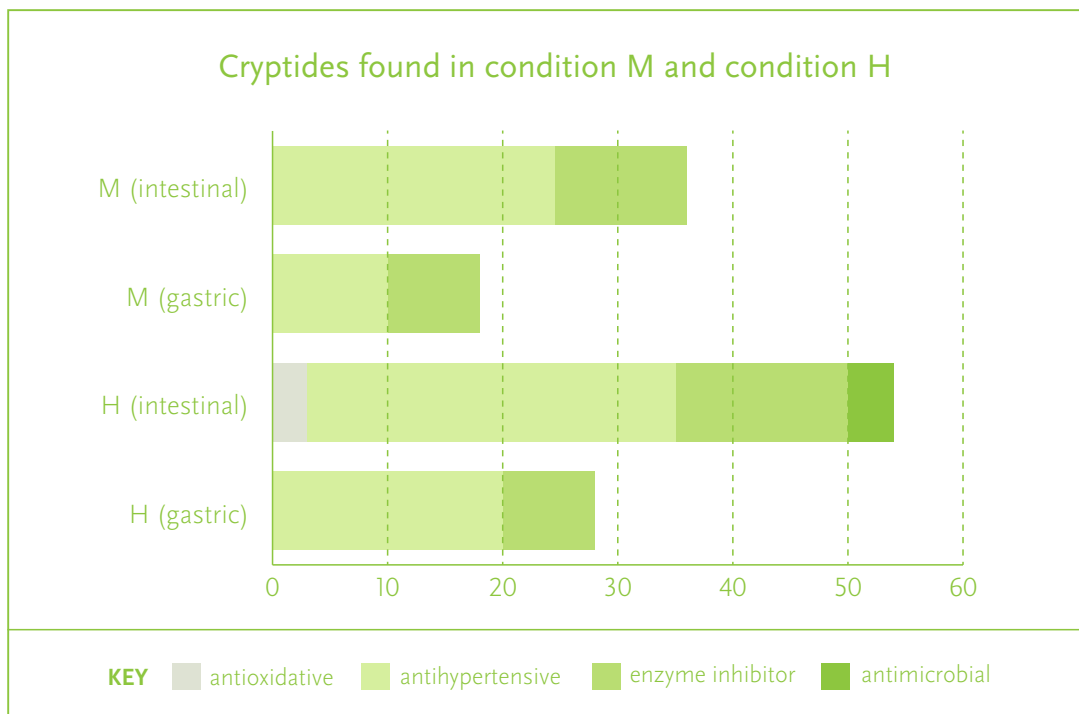
Identifying endogenous peptides and their biological activity.

In certain research areas, there is an interest in characterising the endogenous peptides present in samples, or peptides produced in enzyme hydrolysates, rather than the larger proteins.

At AgResearch, we have a signature focus on smaller proteins and peptides, which are isolated from samples by ultrafiltration using molecular weight cut-off filters of typically 3 kDa or 10 kDa.

Our peptidomics expertise has also put us in the unique position as leaders in bioactive peptide research.

With an extensive in-house database of peptides with known biological activities, we can screen many types of samples for health-related benefits or flavour and taste contributors, all predicted from the peptide sequence derived from mass spectrometry data.



Above: Overview of some cryptides, which are peptides that are enzymatically released from proteins after processing or digestion, identified in samples. Via our in-house database, these bio-actives are predicted to display a range of beneficial activities including antimicrobial, anti-oxidative, antihypertensive and immunomodulating functions.