A

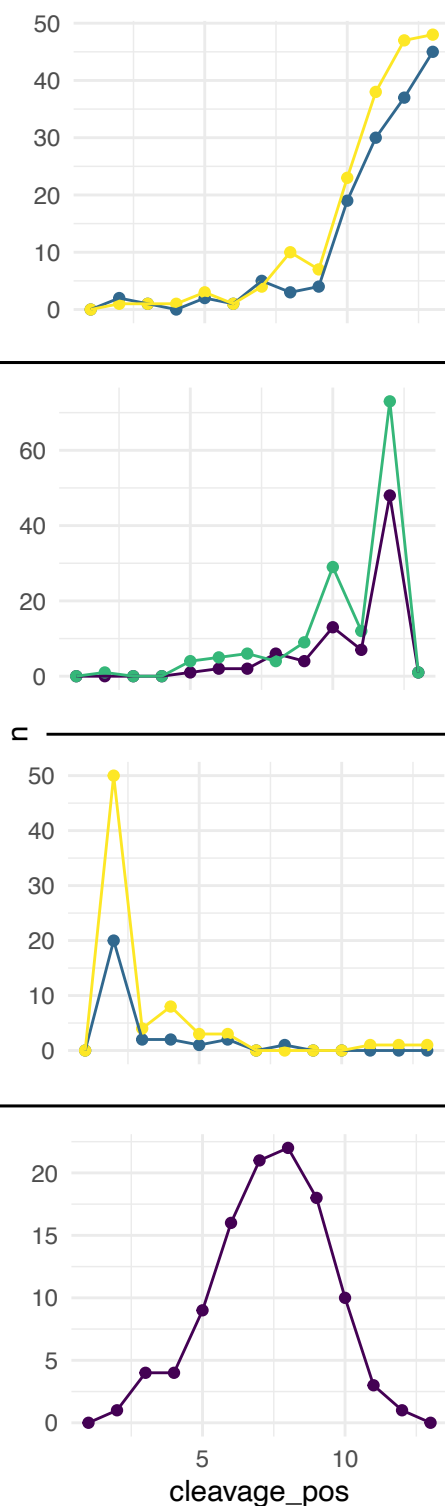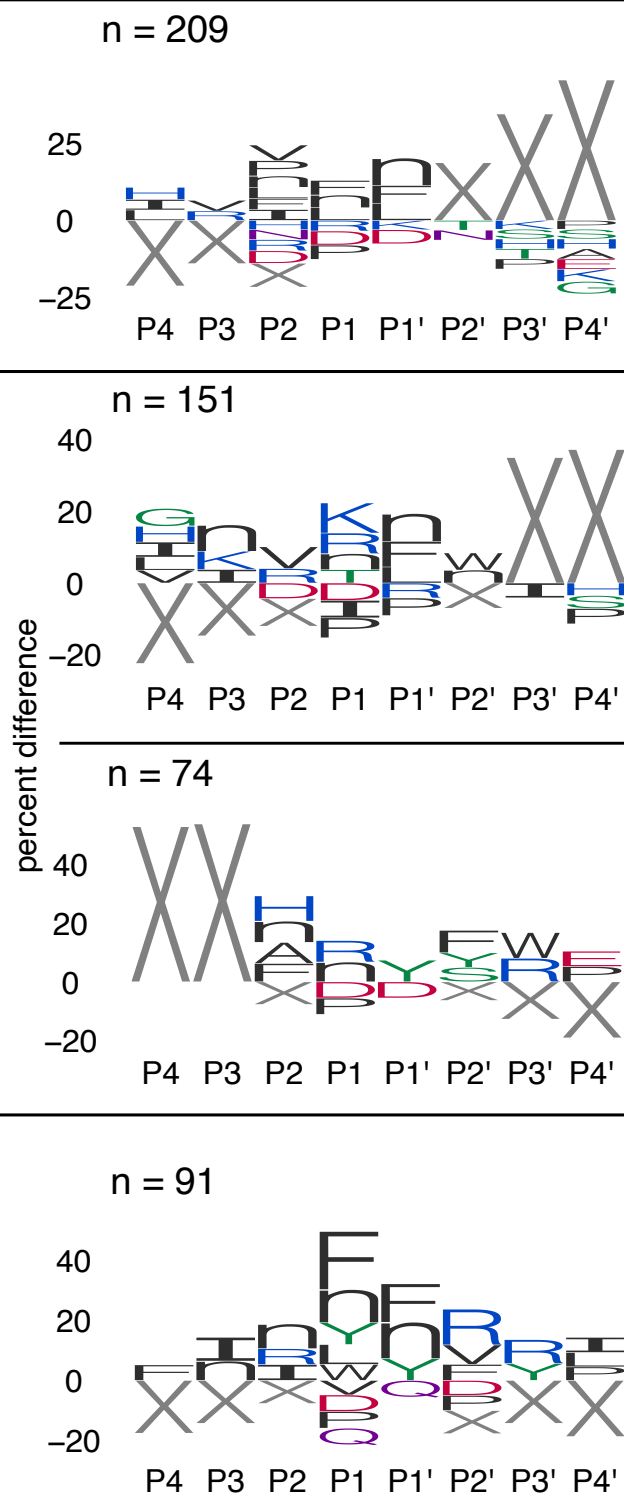| Protease	Positional Specificity	Amino Acid Specificity	Ref
Cathepsin A	Carboxypeptidase	Removes hydrophobic amino acids (e.g. Phe and Leu) from the C-terminus of substrates when additional hydrophobic amino acids are present in P1	[25]
Cathepsin B	Dipeptidyl carboxypeptidase	Removes dipeptides from the C-terminus when either positively charged (Arg, Lys) or hydrophobic amino acids are in the P1 and P2 position	[26]
Cathepsin C	Dipeptidyl aminopeptidase	Removes dipeptides from the N-terminus with broad specificity	[8]
Cathepsin D	Endopeptidase	Cleaves between hydrophobic amino acids (e.g. Phe, Leu, Tyr)	[27]

B   **C**   **D**

Cathepsin A

Cathepsin B

Cathepsin C

Cathepsin D

n = 209

n = 151

n = 74

n = 91

−log10(p.adj value)

percent difference

Log2 (Time TX/T0)

cleavage_pos
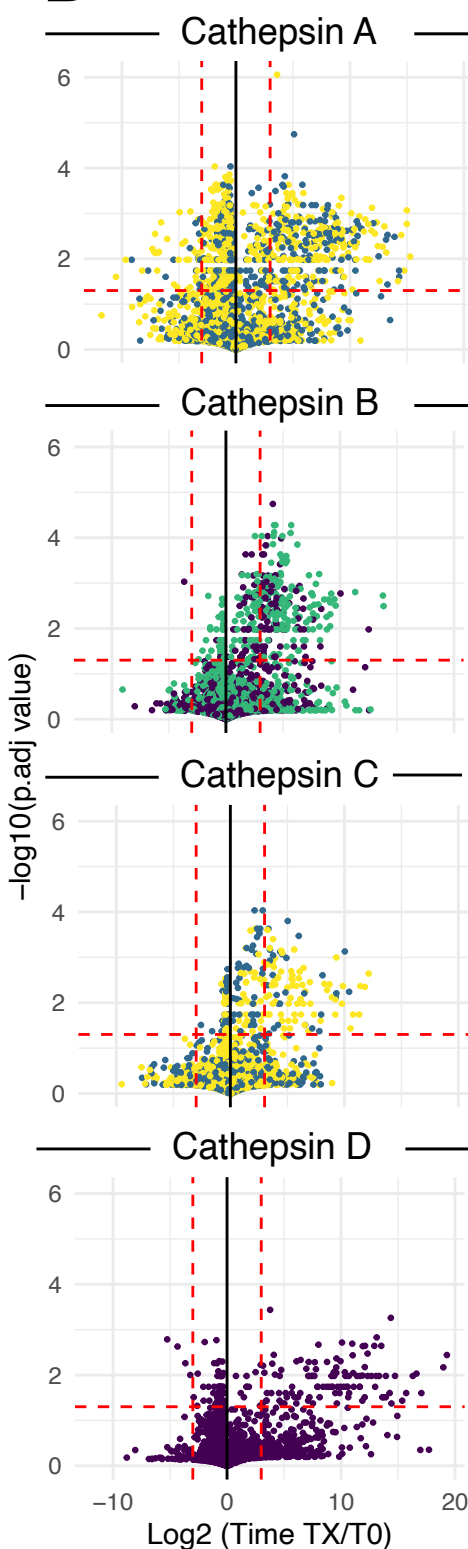
Time (minutes)

● 15 ● 30 ● 60 ● 90

Chemistry

Acidic Hydrophobic Past Terminus
Basic Neutral Polar