

The screenshot displays the Proteome Discoverer 2.5.0.100 interface with four main panels, each highlighted by a red circle and an arrow:

- Protein Summary:** A table listing protein identifications. The highlighted area shows columns for Protein Name, Accession, and Score. A red arrow points to the 'Protein Summary' label.
- PTM Map:** A table showing post-translational modifications (PTMs) for a selected protein. The highlighted area shows columns for PTM Name, Accession, and Score. A red arrow points to the 'PTM Map' label.
- Peptide Summary:** A table listing peptide identifications. The highlighted area shows columns for Peptide Name, Accession, and Score. A red arrow points to the 'Peptide Summary' label.
- PTM Overview:** A table showing the overall PTM profile for a selected protein. The highlighted area shows columns for PTM Name, Accession, and Score. A red arrow points to the 'PTM Overview' label.

Additional red circles and arrows highlight specific features within these panels:

- A red circle highlights the 'Global PTMs' section at the bottom of the Protein Summary panel.
- A red circle highlights the 'Peptide Summary' table in the Peptide Summary panel.
- A red circle highlights the 'PTM Overview' table in the PTM Overview panel.

U =  $1 - 1/4 = 0.75$  ➡ Less frequent

U =  $1 - 3/4 = 0.25$

Normalized Abundance

PTM Standards

PTM Standard	A (Red)	B (Green)	C (Blue)
280	~2.5 × 10 <sup>6</sup>	~8 × 10 <sup>5</sup>	~2 × 10 <sup>5</sup>
412	~5 × 10 <sup>6</sup>	~1.2 × 10 <sup>6</sup>	~3 × 10 <sup>5</sup>
580	~4 × 10 <sup>5</sup>	~7 × 10 <sup>4</sup>	~1.5 × 10 <sup>4</sup>
301	~3 × 10 <sup>6</sup>	~1 × 10 <sup>6</sup>	~2.5 × 10 <sup>5</sup>
500	~6 × 10 <sup>6</sup>	~2 × 10 <sup>6</sup>	~5 × 10 <sup>5</sup>
321	~2 × 10 <sup>6</sup>	~5 × 10 <sup>5</sup>	~1.2 × 10 <sup>5</sup>
532	~2 × 10 <sup>6</sup>	~2 × 10 <sup>5</sup>	~5 × 10 <sup>4</sup>

Normalized Abundance

Control ATP EGF

Y1172 Y998 Y1197 Y1110

Phosphorylated Tyrosines

Phosphorylated Tyrosine	Control	ATP	EGF
Y1172	~1.2 × 10 <sup>4</sup>	~3 × 10 <sup>5</sup>	~2 × 10 <sup>6</sup>
Y998	~1.2 × 10 <sup>4</sup>	~7 × 10 <sup>4</sup>	~3 × 10 <sup>5</sup>
Y1197	~4 × 10 <sup>3</sup>	~2 × 10 <sup>3</sup>	~8 × 10 <sup>5</sup>
Y1110	~7 × 10 <sup>3</sup>	~5 × 10 <sup>4</sup>	~3 × 10 <sup>5</sup>

- NIH-NHLBI contract HHSN268201000031C
- NIH grants P41 RR010888/GM104603 and S10 RR020946