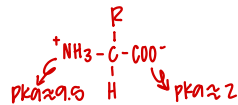


SI SESSION 3

09/10/2025

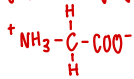
1. Draw an amino acid. What are the 5 things that must be included in order to be classified as an amino acid?

1. amine group
2. carboxyl group
3. hydrogen atom
4. alpha carbon
5. side group "R"

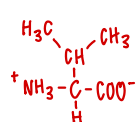


2. Draw the aliphatic amino acids. Give their name, 3 letter, and 1 letter code.

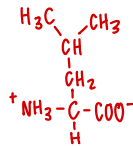
• G: glycine: gly



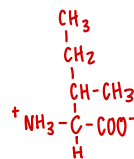
• V: valine: val



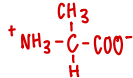
• L: leucine: leu



• I: isoleucine: ile

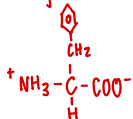


• A: alanine: ala

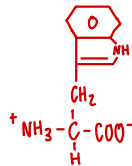


3. Draw the aromatic amino acids. Give their name, 3 letter, and 1 letter code.

• F: phenylalanine: phe

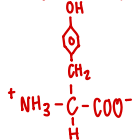


• W: tryptophan: trp



pretty young thing

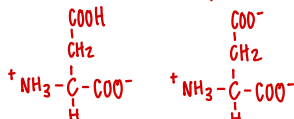
• Y: tyrosine: tyr



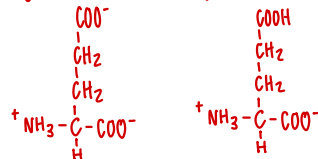
$\text{pKa} = 4$

4. Draw the acidic amino acids. Give their name, 3 letter, and 1 letter code.

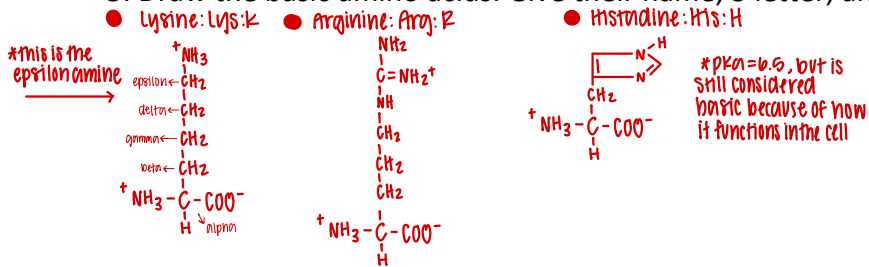
• aspartic acid/aspartate: Asp: D



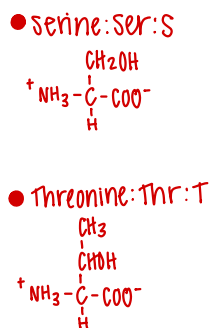
• glutamic acid / glutamate: glv: E



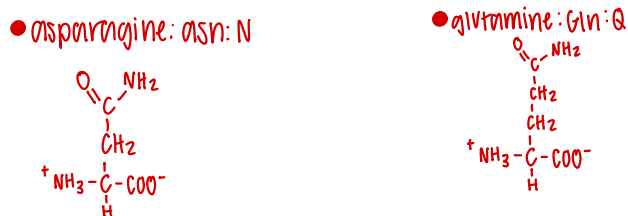
5. Draw the basic amino acids. Give their name, 3 letter, and 1 letter code.



6. Draw the AA's that contain hydroxyl groups. Give their name, 3 letter, and 1 letter code.



7. Draw the AA's that contain amide groups. Give their name, 3 letter, and 1 letter code.



8. Draw the AA's that contain sulfur groups. Give their name, 3 letter, and 1 letter code.

