Source: KBBiologyMasterIndex

#disorganized

1 | Amino Acids

1.1 | Basics

1.1.1 | Functional Groups

Components of amino acids that, well, build an amino acid:

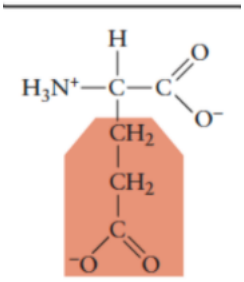
- Alcohol Group: H-O-R (part of the Carboxyl when R=C, as in H-O-C)
- Carbonyl: C=O (part of carboxyl)
- Carboxyl/Carboxylic Acid: H-O-C=O (left side of backbone) Screen Shot 2020-10-12 at 2.29.28 PM
- Amino/amine — H3N+ (right side of backbone)
- amide — RC(=O)NR′R″ (frequently shown in side chains of amino acids — see Amine)
- Ether: R-O-R (structure of glycocidic bonds formed by dehydration)
- Ester: R-O-C-O (structure that joins fatty acid and glycerol together)
- Hydroxyl: OH group. Need I say more?

1.1.2 | The Dang Amino Acids

An Amino Acid is… **(H-O-C=O) Carboxylic acid + Single Carbon Backbone + Amine (H3N+)**

At the carbon backbone, any arbiturary thing “R group, or Sidechain” may be connected to it {ring, chain, etc.} that is unique to the amino acid

Here’s an amino acid



Glutamate (E)
Glu

Figure 1: Screen Shot 2020-09-16 at 2.57.31 PM.png

The White parts => “Backbone” aforementioned

The Orange parts => “sidechain”

1.2 | **Proteins**

[KBhBIO101Proteins] are important biological structures formed by dehydrating multiple amino acids together