CONCEPT: AMINO ACID CONFIGURATION

●All α-amino acids (except glycine) are _____ & biochemists use _____ convention for amino acid chirality.

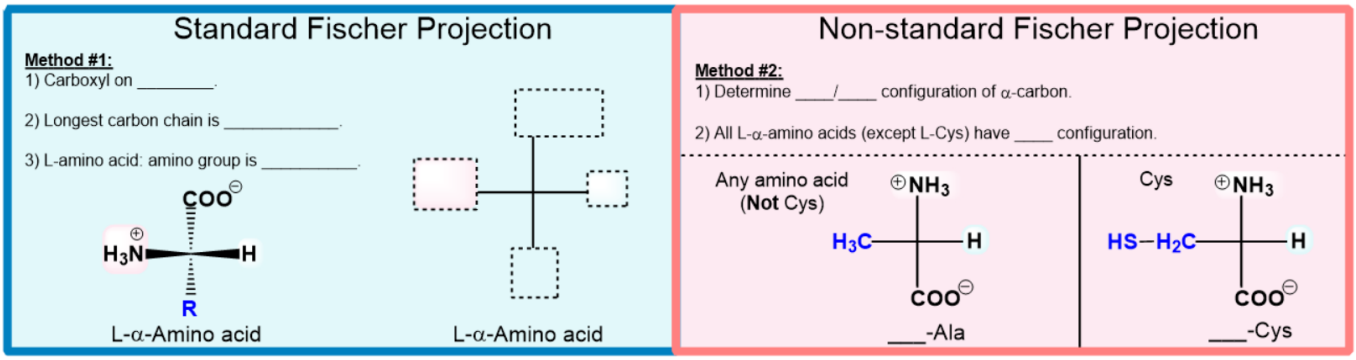
□ *Emil Fischer's convention*: ___ & ___ refer to the configuration of the chiral carbon.

●Life almost exclusively uses ___-amino acids for their proteins.

□ All L-amino acids (except for _____) have an S-configuration.

□ Chiral Center _____: R-group is always priority # ___ (except Cys's R-group = priority # 2).

EXAMPLE: Two Methods to Determine L/D Configuration of Amino Acids.



PRACTICE: Which of the following statements is true?

a) Life predominantly uses D-amino acids to build proteins.

b) Except for Ser, life predominantly uses S-amino acids to build proteins.

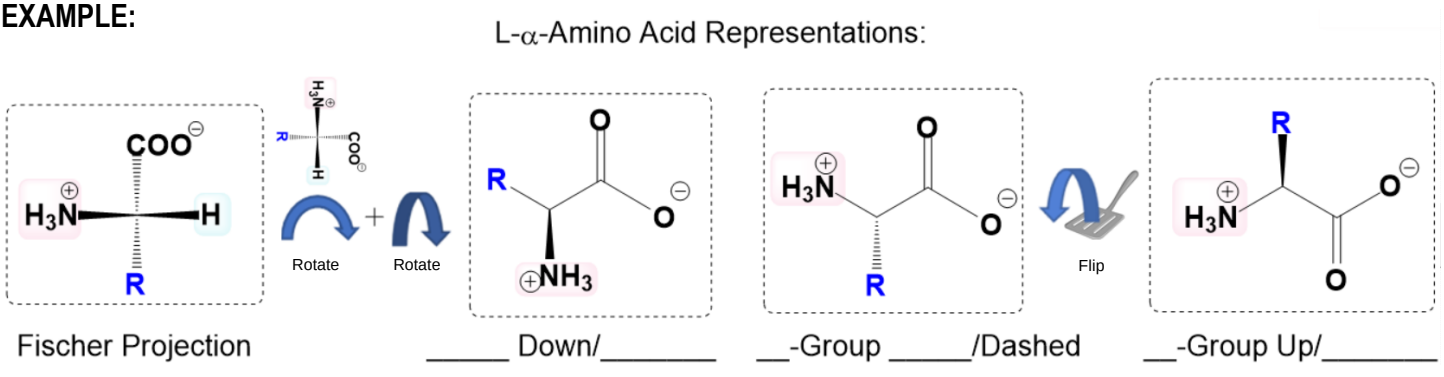
c) All L-amino acids have an S configuration.

d) Life almost exclusively uses L-amino acids to build proteins.

Other L-Amino Acid Representations

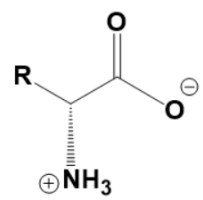
●There are several ways to represent L-amino acids:

EXAMPLE:

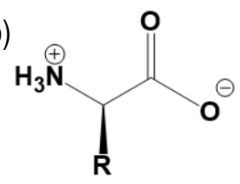


PRACTICE: Which of the following shows an L-amino acid?

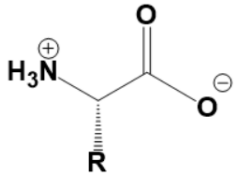
a)



b)



c)



d)