



# DIGESTION OF PROTEINS

## Stomach

1.HCl

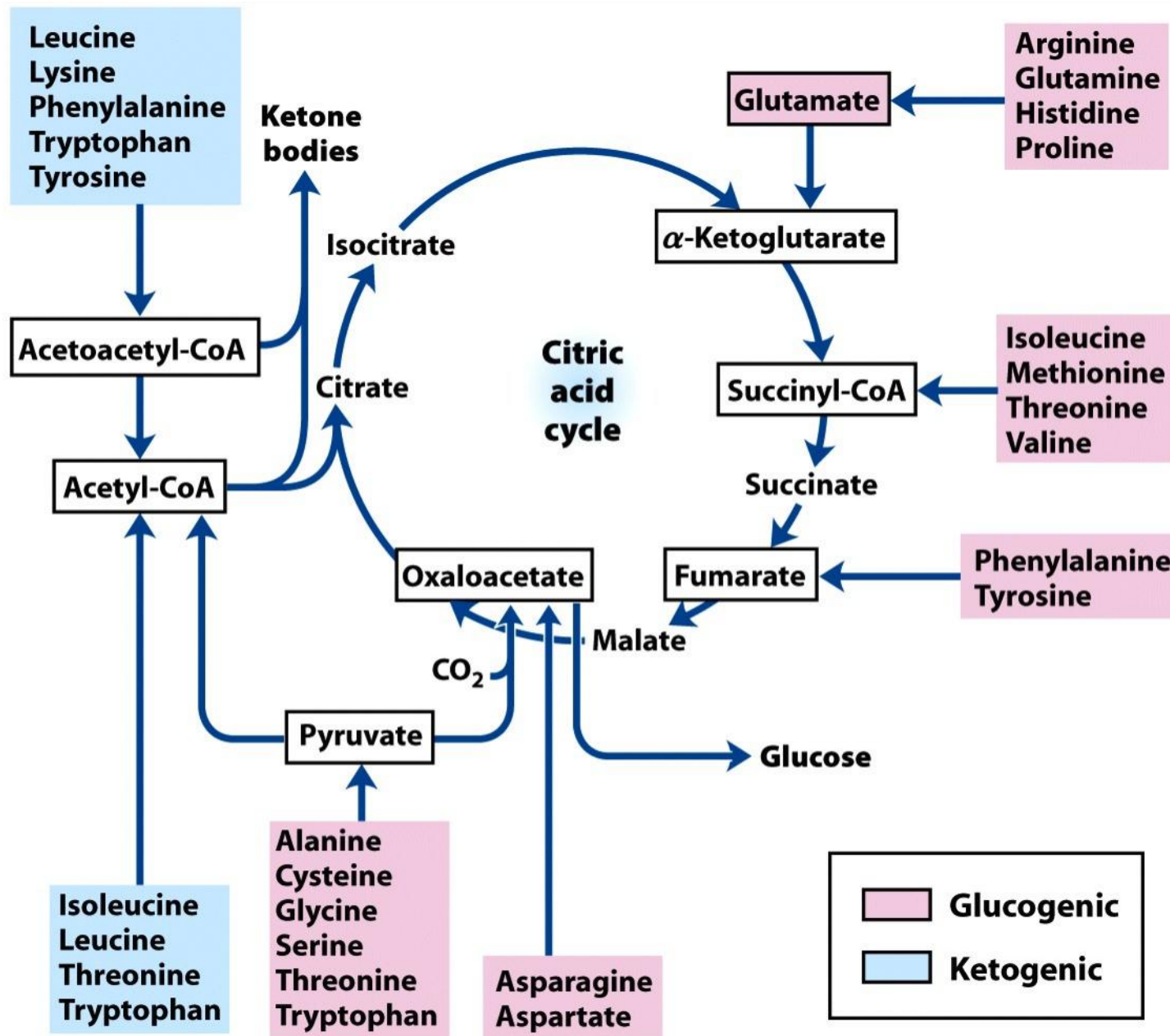
2.Pepsin

- pH of gastric juice: 1.5-2.5
- Acidity of gastric juice
  1. acts as antiseptic & kills most bacteria
  - 2.causes globular proteins to undergo denaturation or unfolding, rendering internal peptide bonds more accessible to E action
- Pepsin hydrolyze peptide bonds

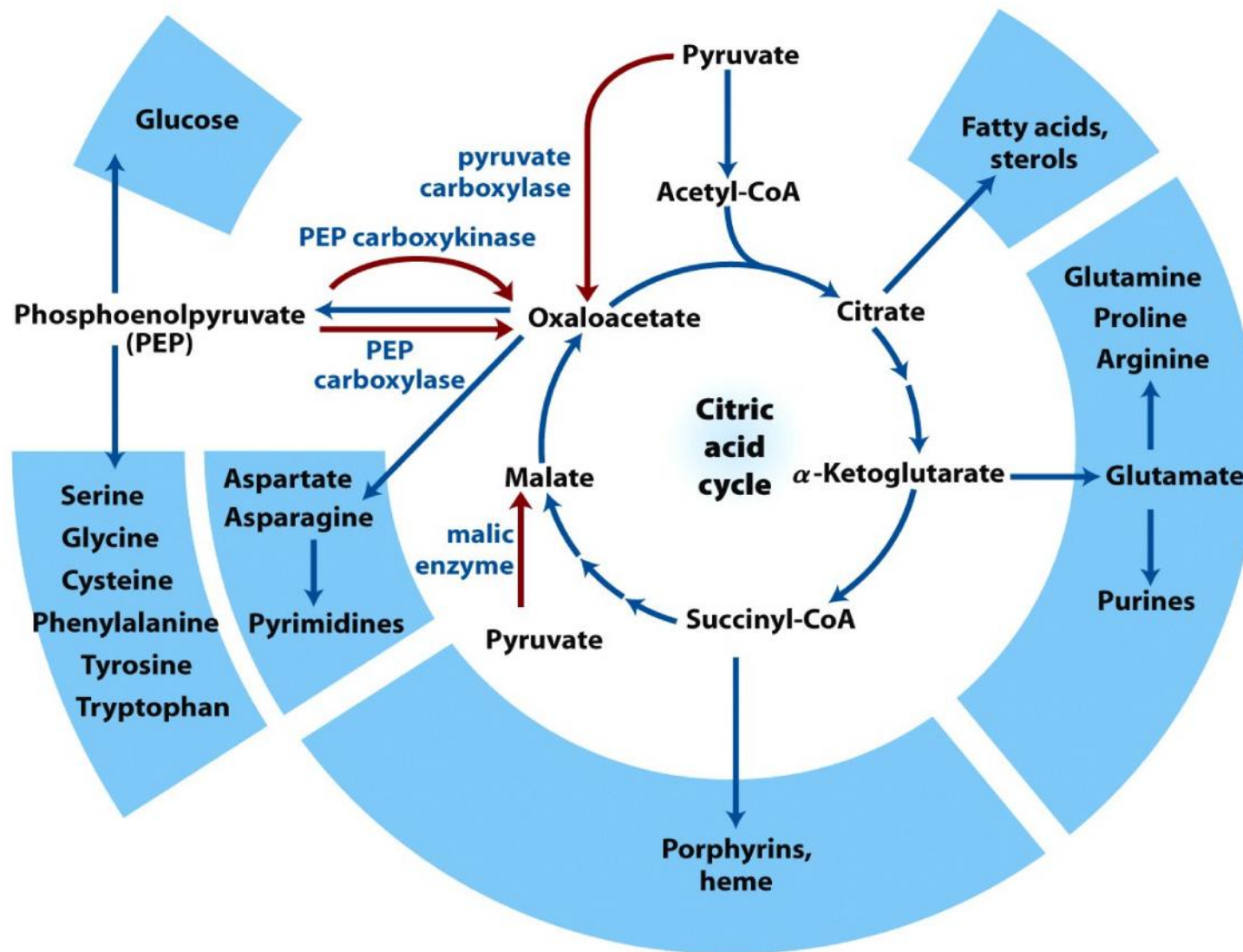
## Small Intestine

- bicarbonate into small intestine
- pH rises from 1.5-2.5 to 7
- trypsin, chymotrypsin, carboxypeptidase

- Carboxypeptidase remove C terminal residues
- Second E: Aminopeptidase
- Sequential action of all E - ingested proteins give mixture of free amino acids
- Which are transported across epithelial cells lining small intestine
- Free amino acids enter the blood capillaries in the villi and go to liver



**Figure 18-15**  
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**Figure 16-15**  
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