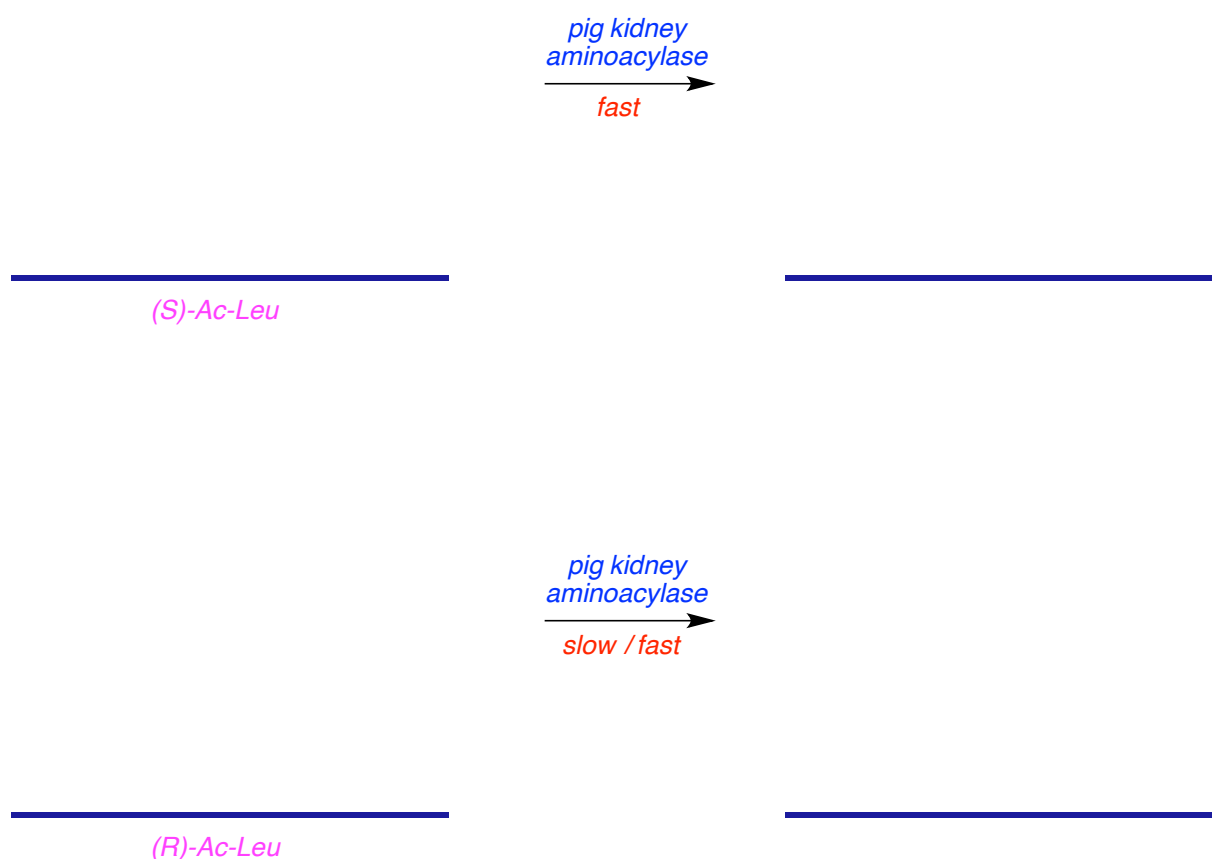


K Kinetic Resolutions Of Amino Acids

Kinetic resolutions involve fast reaction of one enantiomer relative to the other so that starting material enriched in one configuration may be recovered from product enriched in the other.

In a *perfect / poor* kinetic resolution, all one antipode of the starting material would remain unreacted, while all the other would be turned into product.

Illustrate kinetic resolution of racemic *N*-acetyl Leu being preferentially hydrolyzed to the free (*S*)-amino acid by pig kidney aminoacylase.



The maximum yield of almost enantiomerically pure reactant after the reaction above is *100 % / just under 50 % / 2 %*.

The maximum yield of almost enantiomerically pure product in this reaction is *100 % / just under 50 % / 2 %*.

The enantiomeric excess of the product in these reactions *increases / decreases* with conversion, while that of the starting material *increases / decreases*.