

## Biologically Important Organic Molecules— The Amino Acids

Name \_\_\_\_\_

Date \_\_\_\_\_

Biology 230

**Purpose** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

### Data

**Amino acids.** *Attach or sketch your chromatograph.*

Distance solvent moved: _____ cm				
#	Color with ninhydrin	Distance moved (cm)	R <sub>f</sub>	Amino acid name(s)
1				
2				
3				
4				
5				
Unknown #				

### Conclusions

What *two* amino acids were in your unknown (# \_\_\_\_\_)?

### Questions

- Excess cystine in urine may cause kidney stones. How could you test urine for the presence of cystine? (*Hint: What kind of chemical is cystine?*)
- Phenylketonuria occurs in infants born without the ability to normally break down phenylalanine, which is toxic to the brain, builds up in the blood. What is phenylalanine?
- Plants and many bacteria make their own glutamic acid by adding what element to metabolites such as  $\alpha$ -keoglutaric acid?

4. Aspartate transaminase (AST) is normally found in liver cells. It is commonly measured clinically as a part of diagnostic liver function tests, to determine liver health. Mark the figure to show the function of AST.

