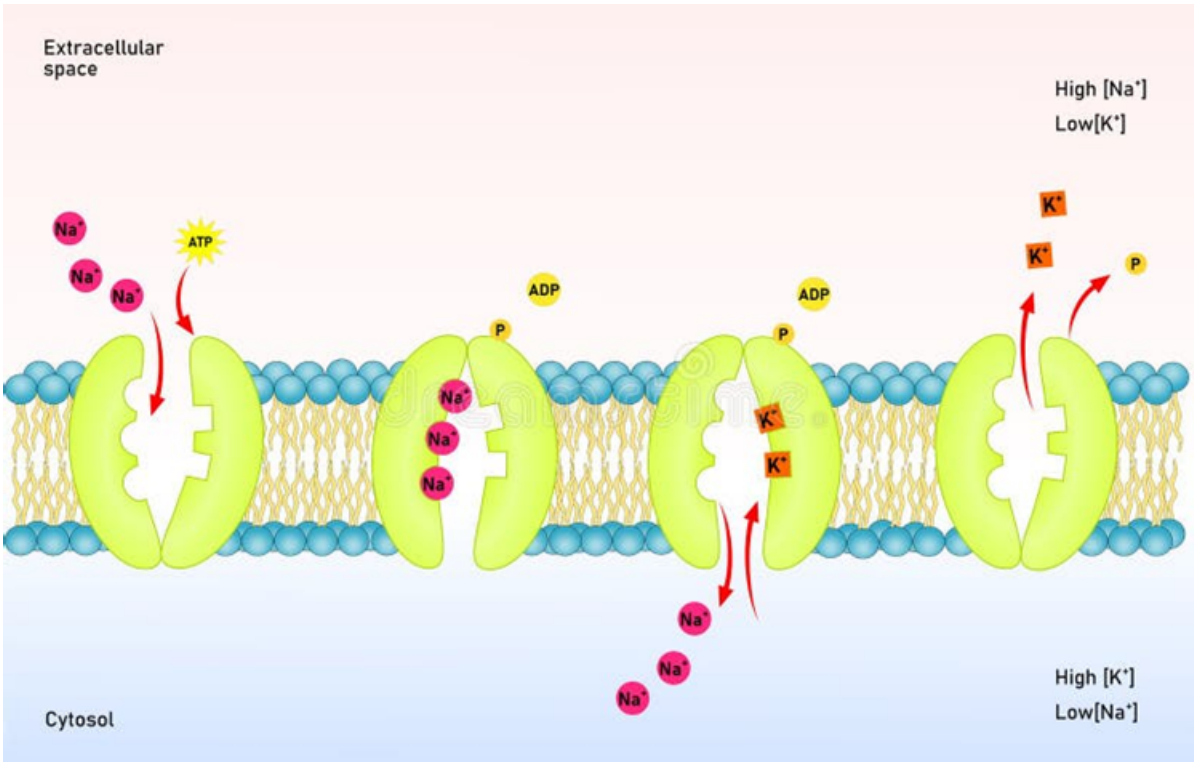


Function & Properties of Sodium-Potassium Pump – [Dreamstime.com](https://www.dreamstime.com/illustration/sodium-potassium-pump.html) image B1

Active transport --- > Sodium-potassium pump. After binding ATP , pump moves sodium ions outside (external to membrane & cell nucleus) position & potassium ions inside of cell in terms of the membrane stationary position

FROM

<https://www.dreamstime.com/illustration/sodium-potassium-pump.html> //



Active transport Sodium potassium pump. After binding ATP, this “pump” moves sodium ions outside the cell’s membrane the & moves the potassium ions the inside of cell membrane. This makes the inside of the cell more positive than the outside of the cell. The outside of the cell is much more negative with respects to the inside of cell which now has a higher concentration of positve K ions.

What us the Cytosol identified near the bottom and to the left of the image.
[AI Overview](#) The **cytosol** is the water-based fluid found inside cells. It surrounds the cell parts like the nucleus and mitochondria. About 70 percent of **Cytosol** is water [[H₂O](#)] It also holds dissolved salts, proteins, and other tiny molecules. [[1](#), [2](#), [3](#), [4](#), [5](#)] . (Note: Click on the H₂O link & learn you a little bit of chemistry along the way because biology + chemistry = Biochemistry, & there are many career opportunity in all parts of the world for those mastering this subject, step-by-step, a little at a time because when you digest the food of knowledge slowly - you take-in more nutrients, more knowledge & you remember much more. When you [gorge](#) of your knowledge plate – try to learn too much too soon – if you don’t get sick of it all – you will very likely walk away from the table – disgusted that you tried to stuff yourself with too much. Little bites and more variety is the ticket to success in [learning in the long run of life](#) .

Main Parts of Cytosol

- **Water:** Makes up most of the fluid and dissolves other chemicals.
- **Ions:** Charged atoms like potassium, sodium, and calcium.
- **Proteins:** Large molecules that help run cell tasks. [[1](#), [2](#), [3](#), [4](#)]

Key Jobs in the Cell

- **Holds things:** Keeps cell parts floating in place.
- **Chemical reactions:** Acts as the site for metabolism, such as breaking down sugar for energy.
- **Moving signals:** Helps pass messages and materials from one part of the cell to another. [[1](#), [2](#), [3](#), [4](#), [5](#)]

Cytosol vs. Cytoplasm

- **Cytosol** is only the liquid part.
- **Cytoplasm** is the cytosol plus all the solid cell parts floating inside it. [[1](#), [2](#)]

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If you are interested, we can look closer at **how this cellular stalling causes muscle cramping** or explore **how cells try to protect themselves from shrinking during dehydration**. Which path should we take?