

Pinocytosis

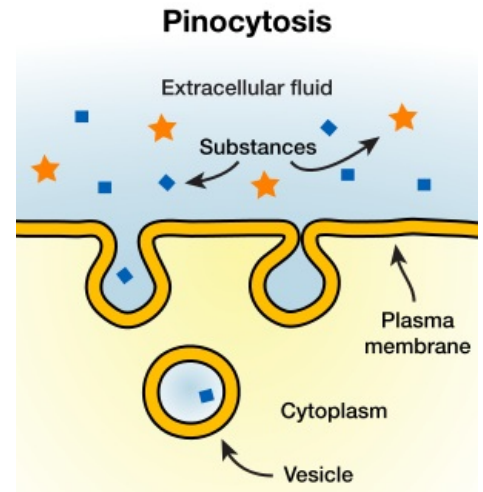
Pinocytosis (from the Greek pinein "drink" and kytos "cell") is one of the subtypes endocytosis. It receives during pinocytosis extracellular fluid (extracellular fluids = ECF).

Progress

By engulfing invagination the cytoplasmic membrane, the cell envelops a small amount of extracellular fluid, which it traps in tiny vesicles. In the cell, these **pinocytic vesicles** merge with lysosomes and are hydrolyzed or simply used for transcytosis. The pinocytosis process requires energy in the form of ATP.

Pinocytic vesicles are formed by elements of the cytoskeleton - microtubules and especially actin microfilaments. Vesicles are up to 80 nm in diameter, compared to phagocytic vesicles which are smaller (5–20 nm).

Pinocytosis is a non-specific process, that is, the pinocytizing cell takes in the extracellular fluid as well as the substances dissolved in it as opposed to receptor-mediated endocytosis.



Scheme of pinocytosis

References

Articles

- Endocytosis
- Transmembrane transport

Source

- VAJNER, Luděk, a kol.. *Lékařská histologie I. - Cytologie a obecná histologie*. 1. edition. Karolinum, 2010. ISBN 978-80-246-1860-9.
- BROOKER, Robert. *Biology*. 2. edition. McGraw-Hill Science/Engineering/Math, 2011. ISBN 9780073532240.