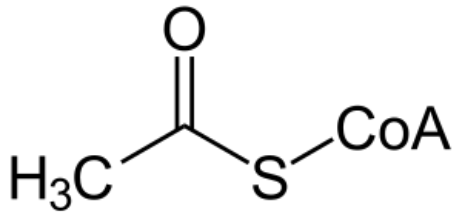
Acetyl-CoA

Acetyl coenzyme A (Ac-CoA) is a central molecule especially in the metabolism of carbohydrates, lipids, proteins and other substances. It is activated acetic acid to which **coenzyme A** is attached via a sulfur atom. In its excess, when the capacity of the citrate cycle is exceeded, it is a substrate for ketogenesis.



Acetyl-CoA

Acetyl coenzyme A is produced during the **decarbocylation of pyruvate** by the irreversible PDH reaction, a large amount is produced during the **β-oxidation** of fatty acids, it is also produced during the **degradation of some amino acids**. It can be formed by the direct enzymatic connection of acetyl and coenzyme A with the consumption of ATP.

It is a macrogenic compund, the macroergic bond energy is 32 kJ/mol.[1]

Links

Related articles

- Citrate cycle
- β-oxidation
- Pyruvate
- Keto bodies
- Glycolysis

References

- Wikipedia editors. *Acetyl coenzyme A* [online]. Wikipedia: The Open Encyclopedia, Last revised 5/6/2011, [cit. 2011-08-01]. < https://cs.wikipedia.org/wiki/Acetylcoenzym_A >.

1. DUŠKA, František and Jan TRNKA. *Biochemistry in context Part I - basics of energy metabolism.* 1st edition. Prague: Karolinum, 2006. p. 25. ISBN 80-246-1116-3 .

External links

- Acetyl coenzyme A