

## H+-transporting two-sector ATPase

Cat. No. EXWM-4650

Lot. No. (See product label)

## Introduction

- **Description** A multisubunit non-phosphorylated ATPase that is involved in the transport of ions. Large enzymes of mitochondria, chloroplasts and bacteria with a membrane sector (Fo, Vo, Ao) and a cytoplasmic-compartment sector (F1, V1, A1). The F-type enzymes of the inner mitochondrial and thylakoid membranes act as ATP synthases. All of the enzymes included here operate in a rotational mode, where the extramembrane sector (containing 3  $\alpha$  and 3  $\beta$ -subunits) is connected via the  $\Delta$ -subunit to the membrane sector by several smaller subunits. Within this complex, the  $\gamma$  and  $\epsilon$ -subunits, as well as the 9-12 c subunits rotate by consecutive 120° angles and perform parts of ATP synthesis. This movement is driven by the H+ electrochemical potential gradient. The V-type (in vacuoles and clathrin-coated vesicles) and A-type (archebacterial) enzymes have a similar structure but, under physiological conditions, they pump H+ rather than synthesize ATP.
- **Synonyms** ATP synthase; F1-ATPase; FoF1-ATPase; H+-transporting ATPase; mitochondrial ATPase; coupling factors (F0, F1 and CF1); chloroplast ATPase; bacterial Ca2+/Mg2+ ATPase

## **Product Information**

Form	Liquid or lyophilized powder
EC Number	EC 7.1.2.2 (Formerly EC 3.6.3.14)
Reaction	ATP + H2O + H + in = ADP + phosphate + H + out
Notes	This item requires custom production and lead time is between 5-9 weeks. We can custom produce according to your specifications.

## Storage and Shipping Information

**Storage** Store it at +4 °C for short term. For long term storage, store it at -20 °C~-80 °C.