

(E3-independent) E2 ubiquitin-conjugating enzyme

Cat. No. EXWM-2298

Lot. No. (See product label)

Introduction

Description

The enzyme transfers a single ubiquitin directly from an ubiquitinated E1 ubiquitin-activating enzyme to itself, and on to a lysine residue of the acceptor protein without involvement of E3 ubiquitin transferases (cf. EC 2.3.2.26, EC 2.3.2.27). It forms a labile ubiquitin adduct in the presence of E1, ubiquitin, and Mg²⁺-ATP and catalyses the conjugation of ubiquitin to protein substrates, independently of E3. This transfer has only been observed with small proteins. In vitro a transfer to small acceptors (e.g. L-lysine, N-acetyl-L-lysine methyl ester) has been observed.

Synonyms

E2-230K; UBE2O; E3-independent ubiquitin-conjugating enzyme E2

Product Information

Form

Liquid or lyophilized powder

EC Number

EC 2.3.2.24

Reaction

S-ubiquitinyl-[E1 ubiquitin-activating enzyme]-L-cysteine + [acceptor protein]-L-lysine = [E1 ubiquitin-activating enzyme]-L-cysteine + N6-monoubiquitinyl-[acceptor protein]-L-lysine (overall reaction); (1a) S-ubiquitinyl-[E1 ubiquitin-activating enzyme]-L-cysteine + [(E3-independent) E2 ubiquitin-conjugating enzyme]-L-cysteine = [E1 ubiquitin-activating enzyme]-L-cysteine + S-monoubiquitinyl-[(E3-independent) ubiquitin-conjugating enzyme]-L-cysteine; (1b) S-monoubiquitinyl-[(E3-independent) E2 ubiquitin-conjugating E2 enzyme]-L-cysteine + [acceptor protein]-L-lysine = [(E3-independent) E2 ubiquitin-conjugating enzyme]-L-cysteine + N6-monoubiquitinyl-[acceptor protein]-L-lysine

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.