

Title (en)
UBIQUITIN CONJUGATING ENZYMES HAVING TRANSCRIPTIONAL REPRESSOR ACTIVITY

Title (de)
UBIQUITIN-KONJUGIERENDES ENZYM MIT TRANSKRIPTIONELLER REPRESSORAKTIVITÄT

Title (fr)
ENZYMES DE CONJUGAISON D'UBIQUITINE PRESENTANT UNE ACTIVITE DE REPRESSION DE TRANSCRIPTION

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Application
EP 96929829 A 19960830

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Abstract (en)
[origin: WO9708195A1] A human ubiquitin conjugating enzyme, designated hUBC-9, its full amino acid sequence, and nucleic acid polymers which encode hUBC-9 are disclosed. In addition to having functional ubiquitin conjugating activity, this enzyme has transcriptional repressor activity which is independent of the conjugating activity. The conjugating activity of hUBC-9 enhances transcription through degradation of transcription suppressor proteins such as WT1, and possibly, of hUBC-9 itself. The repressor activity of hUBC-9 suppress gene transcription, probably by disrupting the transcriptional initiation complex through specific interactions with the DNA binding region of the TATA binding protein (TBP). In use, hUBC-9, yUBC-9 and other ubiquitin conjugating enzymes having repressor activity can be fused to proteins having a DNA binding domain, such as Ga14, or used in conjunction with repressors such as Wilm's tumor suppressor gene product, WT1. Such enzymes and the nucleic acid polymers encoding them can be used for regulating transcription of a target gene in both pharmaceutical and non-pharmaceutical applications.

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