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E3 ubiquitin ligase components in GtoPdb v.2021.3

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Abstract

Ubiquitination (a.k.a. ubiquitylation) is a protein post-translational modification that typically requires the sequential action of three enzymes: E1 (ubiquitin-activating enzymes), E2 (ubiquitin-conjugating enzymes), and E3 (ubiquitin ligases) [19]. Ubiquitination of proteins can target them for proteasomal degradation, or modulate cellular processes including cell cycle progression, transcriptional regulation, DNA repair and signal transduction.
E3 ubiquitin ligases, of which there are >600 in humans, are a family of highly heterogeneous proteins and protein complexes that recruit ubiquitin-loaded E2 enzymes to mediate transfer of the ubiquitin molecule from the E2 to protein substrates. Target substrate specificity is determined by a substrate recognition subunit within the E3 complex.

Contents

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Database links

E3 ubiquitin ligase components
https://www.guidetopharmacology.org/GRAC/FamilyDisplayForward?familyId=1023
Enzymes
cereblon
https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=3086
MDM2 proto-oncogene
https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=3136

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