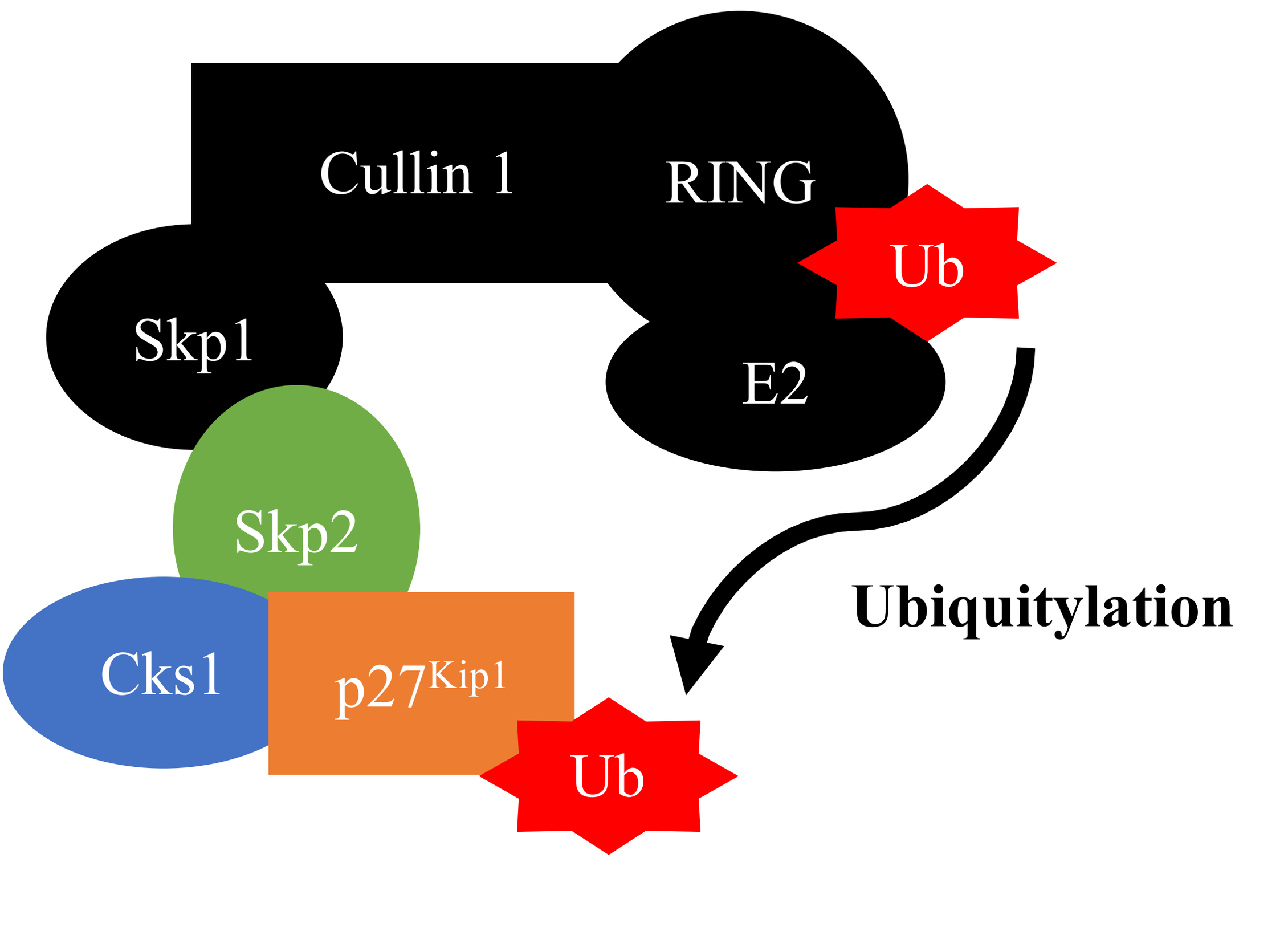
- Both Cks1 and Skp2 are required for the most efficient ubiquitylation of $p27^{Kip1}$.

- It was also shown that Cks1 and Skp2 are often over-expressed in cancer cells.


Cullin 1
RING
Ub
Skp1
E2
Skp2
Ubiquitylation
Cks1
p27Kip1
Ub

$p27^{Kip1}$ is degraded by a ubiquitin-dependent process

A. C. Carrano, et al., *Nat. Cell Biol.* **1**, 193-199 (1999)

D. Frescas & M. Pagano, *Nat. Rev. Cancer* **8**, 438-449 (2008)

J. Slingerland & M. Pagano, *J. Cell. Physiol.* **183**, 10-17 (2000)

Cks1: Cyclin-dependent kinases regulatory subunit 1

Skp2: S-phase kinase-associated protein 2

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Inhibiting p27^{Kip1} ubiquitylation has beneficial effects

Y. Masui & C. L. Markert, *J. Exp. Zool.* **177**, 129-145 (1971)

M. Malumbres & M. Barbacid, *Nat. Rev. Cancer* **9**, 153-166 (2009)

D. O. Morgan, *Nature* **374**, 131-134 (1995)

Background | Project Description | Results | Conclusion