

## E6-AP (Human papillomavirus E6-associated protein)

Cat. # UB304

**Background:** E6-AP (E6-associated protein) is an E3 (ubiquitin protein ligase) that is involved in the conjugation of ubiquitin to target substrates along with E1 and E2 enzymes. It is a HECT domain E3 containing an active site cysteine which accepts a charged ubiquitin from the ubiquitin-E2 thiolester complex. E6-AP has been linked to a neurodevelopmental disorder, Angelman syndrome. In addition the oncoprotein E6 of human papillomaviruses (HPV) utilizes E6-AP to target numerous cellular proteins for degradation including the tumor suppressor protein p53.

**Alternate names:** Ubiquitin-protein ligase E3A

### Product Information

|                          |  |
|--------------------------|--|
| <b>Purity:</b>           | ≥ 85% by SDS-PAGE  |
| <b>Molecular Weight:</b> | 101kDa   |
| <b>Quantity:</b>         | 25 µg  |
| <b>Physical State:</b>   | Liquid   |
| <b>Source:</b>           | Human Recombinant  |
| <b>Tag:</b>              | None   |
| <b>Activity:</b>         | Typical enzyme concentration of 100 nM - 5 µM is used for in vitro conjugation, depending on conditions. |
| <b>Storage:</b>          | -80° C. Avoid repeated freeze/thaw cycles  |

### References

- 1) Huibregtse, J.M., M. Scheffner, and P.M. Howley, Cloning and expression of the cDNA for E6-AP, a protein that mediates the interaction of the human papillomavirus E6 oncoprotein with p53. *Mol Cell Biol*, 1993. **13**:775-84.
- 2) Huibregtse, J.M., M. Scheffner, and P.M. Howley, Localization of the E6-AP regions that direct human papillomavirus E6 binding, association with p53, and ubiquitination of associated proteins. *Mol Cell Biol*, 1993. **13**:4918-27.
- 3) Scheffner, M., et al., The HPV-16 E6 and E6-AP complex functions as a ubiquitin-protein ligase in the ubiquitination of p53. *Cell*, 1993. **75**:495-505.
- 4) Huibregtse, J.M., et al., A family of proteins structurally and functionally related to the E6-AP ubiquitin-protein ligase. *Proc Natl Acad Sci USA*, 1995. **92**:5249.
- 5) Huang, L., et al., Structure of an E6AP-UbcH7 complex: insights into ubiquitination by the E2-E3 enzyme cascade. *Science*, 1999. **286**:1321-1326.

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