# Recombinant Protein Technical Manual

## Recombinant Human UBE2W Protein (His Tag)

**RPES2012**

## Product Data:

**Product SKU:** RPES2012

**Size:** 50µg

**Species**: Human

**Expression host:** E. coli

**Uniprot:** Q96B022

## Protein Information:

**Molecular Mass:** 19.2 kDa

**AP Molecular Mass:** 18 kDa

**Tag:** N-His

**Bio-activity:**

**Purity:** > 97 % as determined by reducing SDS-PAGE.

**Endotoxin:** Please contact us for more information.

**Storage:** Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months.

**Shipping:** This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation:** Lyophilized from sterile 20mM Tris, 100mM Arg.0.1% Brij35, pH 8.5

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:**

**Synonyms:** UBC6;UBC16

## Immunogen Information:

**Sequence:** Met 1-Cys 151

## Background:

Ubiquitin-conjugating enzymes, also known as UBE2W, E2 enzymes and more rarely as ubiquitin-carrier enzymes, perform the second step of protein ubiquitination. The modification of protein with ubiquitin is an important cellular mechanism for targeting abnormal or short-lived proteins for degradation. Ubiquitination involves at least three classes of enzymes: ubiquitin-activating enzymes, or E1s, ubiquitin-conjugating enzymes, or E2s, and ubiquitin-protein ligases, or E3s. UBE2W is a member of the E2 ubiquitin-conjugating enzyme family. This enzyme is required for post-replicative DNA damage repair. It accepts ubiquitin from the E1 complex and catalyzes its covalent attachment to other proteins. It also catalyzes monoubiquitination and "Lys1"-linked polyubiquitination. UBE2W is also considered to regulate FANCD2 monoubiquitination. UBE2W exhibits ubiquitin conjugating enzyme activity and catalyzes the monoubiquitination of PHD domain of Fanconi anemia complementation group L (FANCL). Over-expression of UBE2W in cells promotes the monoubiquitination of FANCD2 and down-regulated UBE2W markedly reduces the UV irradiation-induced but not MMC-induced FANCD2 monoubiquitination.