

Lot # XXXXX

## MATERIAL DATA SHEET

### UBE2K, *human recombinant*

Cat. # E2-603

Ubiquitin-conjugating Enzyme E2K (UBE2K), also known as E2-25K, HIP2, and LIG, is a 200 amino acid (aa) protein with a predicted molecular weight of 22 kDa. Human and mouse UBE2K share 100% aa sequence identity. Similar to other ubiquitin-conjugating enzymes (E2s), UBE2K/E2-25K contains a conserved ubiquitin-conjugating domain but is unique in that it also has a C-terminal, non-covalent ubiquitin binding surface termed the ubiquitin-associated domain between aa residues 160 and 200. UBE2K/E2-25K mediates the elongation of K48-linked polyubiquitin chains. UBE2K/E2-25K catalytic activity can be modulated by the post-translational addition of SUMO at Lys14. Substrates include the Huntingtin protein and the tumor suppressor RB1. UBE2K/E2-25K is widely expressed, with highest levels found in the brain cortex and striatum, and dysregulated UBE2K/E2-25K is implicated in polyglutamine diseases and Alzheimer's disease.

#### Product Information

<b>Quantity:</b>	100 µg
<b>Stock:</b>	0.56 mg/ml (25 µM) in 50 mM HEPES pH 7.5, 150 mM NaCl, 1 mM TCEP
<b>MW:</b>	22 kDa
<b>Purity:</b>	> 95% by SDS-PAGE under reducing conditions and visualized by Colloidal Coomassie Blue stain.

#### Use & Storage

<b>Use:</b>	Recombinant Human UBE2K is a member of the Ubiquitin-conjugating enzyme (E2) family that receives ubiquitin from a Ubiquitin-activating enzyme (E1) and subsequently interacts with a Ubiquitin ligase (E3) to conjugate ubiquitin to substrate proteins. Reaction conditions will need to be optimized for each specific application. We recommend an initial UBE2K concentration of 0.1-1 µM.
<b>Storage:</b>	Store at -80°C. Avoid multiple freeze/thaw cycles.

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