



**Orders:** 877-616-CELL (2355)  
orders@cellsignal.com

**Support:** 877-678-TECH (8324)

**Web:** info@cellsignal.com  
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

Store at -20C  
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## E2-25K/Hip2 Antibody

For Research Use Only. Not for Use in Diagnostic Procedures.

|                           |                                |                                   |                        |                                  |                               |                                |
|---------------------------|--------------------------------|-----------------------------------|------------------------|----------------------------------|-------------------------------|--------------------------------|
| <b>Applications:</b><br>W | <b>Reactivity:</b><br>H M R Mk | <b>Sensitivity:</b><br>Endogenous | <b>MW (kDa):</b><br>25 | <b>Source/Isotype:</b><br>Rabbit | <b>UniProt ID:</b><br>#P61086 | <b>Entrez-Gene Id:</b><br>3093 |
|---------------------------|--------------------------------|-----------------------------------|------------------------|----------------------------------|-------------------------------|--------------------------------|

### Product Usage Information

#### Application

Western Blotting

#### Dilution

1:1000

### Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

### Specificity/Sensitivity

E2-25K/Hip2 Antibody detects endogenous levels of total E2-25K/Hip2 protein.

### Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Arg11 of human E2-25K/Hip2 protein. Antibodies are purified by protein A and peptide affinity chromatography.

### Background

Protein ubiquitination requires the concerted action of the E1, E2, and E3 ubiquitin-conjugating enzymes. Ubiquitin is first activated through ATP-dependent formation of a thiol ester with ubiquitin-activating enzyme E1. The activated ubiquitin is then transferred to a thiol group of ubiquitin-carrier enzyme E2. The final step is the transfer of ubiquitin from E2 to an ε-amino group of the target protein lysine residue, which is mediated by ubiquitin-ligase enzyme E3 (1). E2-25K (Hip2) is a member of the E2 protein family that catalyzes multiubiquitin chain synthesis via Lys48 of ubiquitin (2). E2-25K is reportedly involved in Alzheimer's disease, Huntington's disease and antigen processing through its interaction with amyloid-β, huntingtin, and MHC-heavy chain proteins (3-5). Lys14 of E2-25K can be modified by SUMOylation, with this modification resulting in inhibited E2 activity (6).

### Background References

1. Hershko, A. (1988) *J Biol Chem* 263, 15237-40.
2. Chen, Z. and Pickart, C.M. (1990) *J. Biol. Chem.* 265, 21835-21842.
3. Song, S. et al. (2003) *Mol. Cell* 12, 553-563.
4. de Pril, R. et al. (2007) *Mol. Cell. Neurosci.* 34, 10-19.
5. Flierman, D. et al. (2006) *Proc. Natl. Acad. Sci. USA* 103, 11589-11594.
6. Pichler, A. et al. (2005) *Nat. Struct. Mol. Biol.* 12, 264-269.

### Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

### Western Blot Buffer

**IMPORTANT:** For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

### Applications Key

**W:** Western Blotting

### Cross-Reactivity Key

**H:** Human **M:** Mouse **R:** Rat **Mk:** Monkey

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