Revision 1

Store at -20C
#8226

HIP2 (D27C4) Rabbit mAb

Cell Signaling TECHNOLOGY®

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, IP	H M R Mk	Endogenous	25	Rabbit IgG	#P61086	3093

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	1:100

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. Do not aliquot the antibody.

Specificity / Sensitivity

HIP2 (D27C4) Rabbit mAb recognizes endogenous levels of total HIP2 protein.

Species predicted to react based on 100% sequence homology:

Bovine

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Glu161 of human HIP2 protein.

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).
Huntingtin-interacting protein-2 (HIP2), also known as E2-25K, is a member of the E2 protein family that is highly expressed in the brain and 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 (3-6). Recent studies have also implicated HIP2 in the control of apoptosis and cell-cycle progression through its ability to regulate the stability of Smac/Diablo and cyclin B1 (7,8).

Background References

1. Hershko, A. (1988) *J Biol Chem* 263, 15237-40.
2. Chen, Z. and Pickart, C.M. (1990) *J Biol Chem* 265, 21835-42.
3. Song, S. et al. (2003) *Mol Cell* 12, 553-63.
4. de Pril, R. et al. (2007) *Mol Cell Neurosci* 34, 10-9.
5. Flierman, D. et al. (2006) *Proc Natl Acad Sci USA* 103, 11589-94.
6. Kalchman, M.A. et al. (1996) *J Biol Chem* 271, 19385-94.
7. Bae, Y. et al. (2010) *Biochem Biophys Res Commun* 397, 718-23.
8. Bae, Y. et al. (2010) *FEBS Lett* 584, 4505-10.

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

WB: Western Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster **X:** Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse **GP:** Guinea Pig **Rab:** rabbit **All:** all species expected

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