

Rabbit UBE2K Polyclonal Antibody | anti-UBE2K antibody

UBE2K Antibody

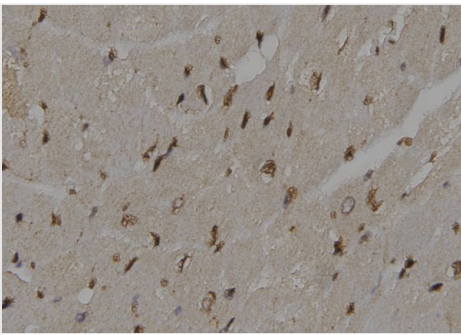
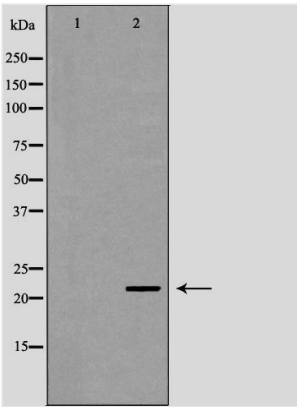
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA326012	Rabbit	Human, Mouse, Rat	ELISA, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

UBE2K; Polyclonal Antibody; UBE2K Antibody; E2 25K; E2(25K); HIP-2; Huntingtin interacting protein 2; Huntingtin-interacting protein 2; HYPG; LIG; UBC1; UBE2K_HUMAN; Ubiquitin carrier protein; Ubiquitin conjugating enzyme E2 25 kDa; ubiquitin conjugating enzyme E2K; ubiquitin conjugating enzyme E2K (UBC1 homolog; yeast); Ubiquitin protein ligase; Ubiquitin-conjugating enzyme E2 K; Ubiquitin-conjugating enzyme E2(25K); Ubiquitin-conjugating enzyme E2-25 kDa; Ubiquitin-conjugating enzyme E2-25K; Ubiquitin-protein ligase; anti-UBE2K antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	UBE2K antibody detects endogenous levels of total UBE2K
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	157
Applicable Applications for anti-UBE2K antibody	ELISA, IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human UBE2K
Subcellular Location	Cytoplasm.
Tissue Specificity	Expressed in all tissues tested, including spleen, thymus, prostate, testis, ovary, small intestine, colon, peripheral blood leukocytes, T-lymphocytes, monocytes, granulocytes and bone marrow mononuclear cells. Highly expressed in brain, with highest levels found in cortex and striatum and at lower levels in cerebellum and brainstem.
Predicted Cross Reactivity	Pig, Bovine, Horse, Sheep, Rabbit, Dog, Chicken, Xenopus
Similarity	Pig (100%), Bovine (100%), Horse (100%), Sheep (100%), Rabbit (100%), Dog (100%), Chicken (100%), Xenopus (100%)
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.



IHC (Immunohistochemistry)
AAA326012 at 1/100 staining Mouse heart tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.

WB (Western Blot)
Western blot analysis of human brain lysate using UBE2K antibody. The lane on the left is treated with the antigen-specific peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-UBE2K antibody

Description: 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 epsilon-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-beta, 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). Entry of all eukaryotic cells into mitosis is regulated by activation of cdc2 kinase. The critical regulatory step in activating cdc2 during progression into mitosis appears to be dephosphorylation of Tyr15 and Thr14 (1, 2). Phosphorylation at Tyr15 and Thr14 and inhibition of cdc2 is carried out by Wee1 and Myt1 protein kinases, while Tyr15 dephosphorylation and activation of cdc2 is carried out by the cdc25 phosphatase (1, 3, 4). Hyperphosphorylation and inactivation of Myt1 in mitosis suggests that one or more kinases activated at the G2/M transition negatively regulates Myt1 activity. Kinases shown to phosphorylate Myt1 include cdc2, p90RSK, Akt, and Plk1 (5-8).

Function: Accepts ubiquitin from the E1 complex and catalyzes its covalent attachment to other proteins. In vitro, in the presence or in the absence of BRCA1-BARD1 E3 ubiquitin-protein ligase complex, catalyzes the synthesis of 'Lys-48'-linked polyubiquitin chains. Does not transfer ubiquitin directly to but elongates monoubiquitinated substrate protein. Mediates the selective degradation of short-lived and abnormal proteins, such as the endoplasmic reticulum-associated degradation (ERAD) of misfolded luminal proteins. Ubiquitinates huntingtin. May mediate foam cell formation by the suppression of apoptosis of lipid-bearing macrophages through ubiquitination and subsequent degradation of p53/TP53. Proposed to be involved in ubiquitination and proteolytic processing of NF-kappa-B; in vitro supports ubiquitination of NFKB1. In case of infection by cytomegaloviruses may be involved in the US11-dependent degradation of MHC class I heavy chains following their export from the ER to the cytosol. In case of viral infections may be involved in the HPV E7 protein-dependent degradation of RB1.

Subunit Structure: Interacts with RNF138/NARF. Interacts with BRCA1.

Post-translational Modifications: Sumoylation at Lys-14 impairs catalytic activity.

Similarity: Belongs to the ubiquitin-conjugating enzyme family.

NCBI AND UNIPROT INFORMATION

NCBI GI #	163660385
NCBI GeneID	3093
NCBI Accession #	NP_001104582.1
NCBI GenBank Nucleotide #	NM_001111112.1
UniProt Accession #	P61086; O54806; P27924; Q16721; Q9Cvv9; Q9Y2D3; A6NJC1; A8K5Y9; B2RDF8; C9JGP1

Molecular Weight	Observed: 22 kDa Predicted: 23 kDa
NCBI Official Full Name	ubiquitin-conjugating enzyme E2 K isoform 2
NCBI Official Synonym Full Names	ubiquitin conjugating enzyme E2 K
NCBI Official Symbol	UBE2K
NCBI Official Synonym Symbols	LIG; HIP2; HYPG; UBC1; E2-25K
NCBI Protein Information	ubiquitin-conjugating enzyme E2 K
UniProt Protein Name	Ubiquitin-conjugating enzyme E2 K
UniProt Gene Name	UBE2K
UniProt Synonym Gene Names	HIP2; LIG; HIP-2; Ubiquitin-conjugating enzyme E2(25K); Ubiquitin-conjugating enzyme E2-25K

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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