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Dsk2 Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP2175a

Product Information

Application	WB, IHC-P, E
Primary Accession	Q9UHD9
Other Accession	Q9QZM0, Q9JJP9, Q8R317, Q9UMX0
Reactivity	Human
Predicted	Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB4547
Calculated MW	65696
Antigen Region	20-50

Additional Information

Gene ID	29978
Other Names	Ubiquilin-2, Chap1, DSK2 homolog, Protein linking IAP with cytoskeleton 2, PLIC-2, hPLIC-2, Ubiquitin-like product Chap1/Dsk2, UBQLN2, N4BP4, PLIC2
Target/Specificity	This Dsk2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 20-50 amino acids from the N-terminal region of human Dsk2.
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	Dsk2 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	UBQLN2
Synonyms	N4BP4, PLIC2

Function	Plays an important role in the regulation of different protein degradation mechanisms and pathways including ubiquitin- proteasome system (UPS), autophagy and the endoplasmic reticulum- associated protein degradation (ERAD) pathway. Mediates the proteasomal targeting of misfolded or accumulated proteins for degradation by binding (via UBA domain) to their polyubiquitin chains and by interacting (via ubiquitin-like domain) with the subunits of the proteasome (PubMed:10983987). Plays a role in the ERAD pathway via its interaction with ER-localized proteins FAF2/UBXD8 and HERPUD1 and may form a link between the polyubiquitinated ERAD substrates and the proteasome (PubMed:18307982, PubMed:24215460). Involved in the regulation of macroautophagy and autophagosome formation; required for maturation of autophagy-related protein LC3 from the cytosolic form LC3-I to the membrane-bound form LC3-II and may assist in the maturation of autophagosomes to autolysosomes by mediating autophagosome-lysosome fusion (PubMed:19148225, PubMed:20529957). Negatively regulates the endocytosis of GPCR receptors: AVPR2 and ADRB2, by specifically reducing the rate at which receptor-arrestin complexes concentrate in clathrin-coated pits (CCPs) (PubMed:18199683).
Cellular Location	Cytoplasm. Nucleus. Membrane {ECO:0000250|UniProtKB:Q9QZM0} Cytoplasmic vesicle, autophagosome Note=Colocalizes with a subset of proteasomes, namely those that are cytoskeleton associated or free in the cytosol. Associated with fibers in mitotic cells.

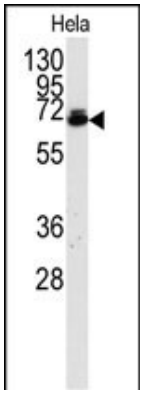
Background

Dsk2 increases the half-life of proteins destined to be degraded by the proteasome, and may modulate proteasome-mediated protein degradation. The Dsk2 protein binds UBE3A and BTRC, and interacts with the 19S proteasome subunit. In the cytoplasm, Dsk2 colocalizes with the proteasome; it is also associated with fibers in mitotic cells in the nucleus. Dsk2 is highly expressed in mitotic cells from metaphase to telophase, while expression in non-mitotic cells is very low.

References

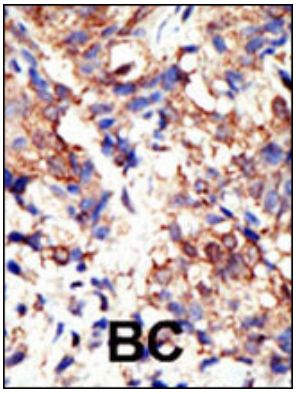
Walters, K.J., et al., Biochemistry 41(6):1767-1777 (2002).
Kleijnen, M.F., et al., Mol. Cell 6(2):409-419 (2000).
Ueki, N., et al., Nat. Biotechnol. 16(13):1338-1342 (1998).

Images

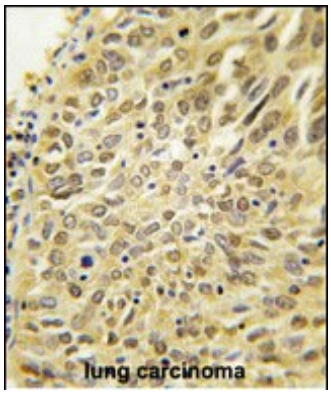


The anti-Dsk2 Pab (Cat. #AP2175a) is used in Western blot to detect Dsk2 in HeLa cell lysate.

Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody,



followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.



Formalin-fixed and paraffin-embedded human lung carcinoma tissue reacted with Dsk2 Antibody (N-term) (Cat.#AP2175a), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.