10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-UBA7 Antibody

Catalog # AP51596

Product Information

Application	WB, IHC, IF/IC
Primary Accession	P41226
Reactivity	Human, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	111694

Additional Information

Gene ID	7318
Other Names	UBE1L; UBE2; Ubiquitin-like modifier-activating enzyme 7; Ubiquitin-activating enzyme 7; D8; Ubiquitin-activating enzyme E1 homolog
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the C-term region of human UBA7. The exact sequence is proprietary.
Dilution	WB~~ 1:1000 IHC~~1:100~500 IF/IC~~N/A
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

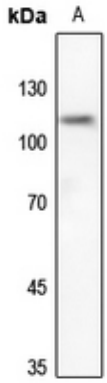
Name	UBA7 {ECO:0000303|PubMed:28397838, ECO:0000312|HGNC:HGNC:12471}
Function	E1-activating enzyme that catalyzes the covalent conjugation of the ubiquitin-like protein product of ISG15 to additional interferon stimulated proteins (ISGs) as well as other cellular proteins such as P53 in a process termed protein ISGylation (PubMed:27545325). Plays an essential role in antiviral immunity together with ISG15 by restricting the replication of many viruses including rabies virus, influenza virus, sindbis virus, rotavirus or human cytomegalovirus (PubMed:16254333, PubMed:19073728, PubMed:29056542, PubMed:29743376, PubMed:37722521). For example, ISG15 modification of influenza A protein NS1 disrupts the association of the NS1 with importin-alpha leading to NS1 nuclear import inhibition (PubMed:20133869). ISGylation of human cytomegalovirs protein UL26 regulates its stability and inhibits its activities to suppress NF-kappa-B signaling (PubMed:27564865).
Cellular Location	Cytoplasm. Nucleus

Tissue Location	Expressed in a variety of normal and tumor cell types, but is reduced in lung cancer cell lines

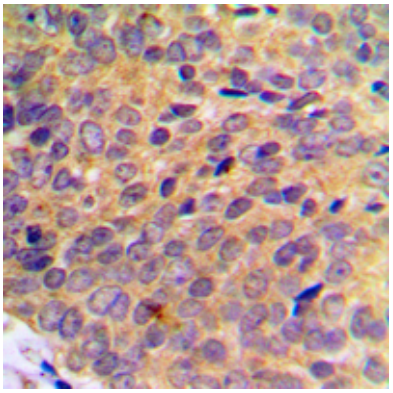
References

Kok K.,et al.Proc. Natl. Acad. Sci. U.S.A. 90:6071-6075(1993).
Kok K.,et al.Gene Expr. 4:163-175(1995).
Kalnine N.,et al.Submitted (MAY-2003) to the EMBL/GenBank/DDBJ databases.
Mural R.J.,et al.Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases.
Gevaert K.,et al.Nat. Biotechnol. 21:566-569(2003).

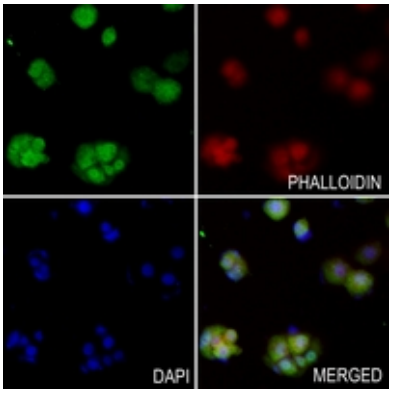
Images



Western blot analysis of UBA7 expression in rat kidney (A) whole cell lysates. (Predicted band size: 111 kD; Observed band size: 112 kD)



Immunohistochemical analysis of UBA7 staining in human breast cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of UBA7 staining in Hela cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with a AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AF594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.