NEUROMICS

Ubiquitin

Data Sheet

Catalog Number:	RA22154	Host:	Rabbit
Product Type:	Rabbit Polyclonal	Species Reactivity:	Human, Rat, Mouse
Immunogen Sequence:	Purified ubiquitin conjugated with glutaraldehyde to KLH	Format:	Supplied as an aliquot of serum plus 5mM NaN3
Applications:	Immunofluorescence: 1:500-1,000 Immunohistochemistry: 1:500-1,000 Western Blot: 1:5,000-10,000		
Storage:	Dilutions listed as a recommendation. Optimal dilution should be determined by investigator. Antibody can also be aliquotted and stored frozen at -20° C in a manual defrost freezer for six months without detectable loss of activity. The antibody can be stored at 2° - 8° C for 1 month without detectable loss of activity. Avoid repeated freeze-thaw cycles.		

Application Notes

Description/Data

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Ubiquitin is a globular 76 amino acid protein of about 8.5kDa molecular weight which was discovered by biochemical isolation from bovine thymus tissues. The protein was found to be highly conserved in amino acid sequence and was detectable in apparently every cell and tissue type, and, being apparently ubiquitously expressed, became known as ubiquitin. Subsequent work showed that ubiquitin has an important role in the targeting of proteins for proteolytic degradation, but has other important functions.

RA22154 was made against purified bovine blood derived ubiquitin coupled to keyhole limpet hemocyanin with glutaraldehyde. The antibody is relatively insensitive to formalin fixation and so can be used on paraffin embedded fixed histological sections of human brain for studies of Alzheimer's and other neurodegenerative diseases.



Image: Immunofluorescent analysis of HeLa cells stained with rabbit pAb to ubiquitin, RA22154, dilution 1:1,000 in red, and costained with chicken pAb to vimentin in green. The blue is DAPI staining of nuclear DNA. [A] Control HeLa cells maintained in normal medium, [B] HeLa cells treated with 10µM of the proteasome inhibitor lactacystin (Lc) for 24 hours. Proteasomal inhibition leads to formation of strongly ubiquitin positive cytoplasmic inclusions. Note the diffuse cytoplasmic ubiquitin staining in control cells and well defined ubiquitin positive inclusions in the Lc treated cells.

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