Mouse monoclonal antibody to Ubiquitin [Ubi-1]

Catalogue No.:	M-1404-100
Description:	Ubiquitin is a highly conserved 76 amino acid protein with an estimated molecular weight of 8.56 kDa which has a central role in regulated protein degradation. It is a protein modifier which can be covalently attached to target lysines either as a monomer or as a lysine-linked polymer. Several types of polymeric chains can be formed depending on the lysine used for the assembly. Attachment to proteins as a polymer leads to their degradation by the 26S proteosome; a complex, multicatalytic cytosolic and nuclear protease. Attachment to proteins as a monomer or as an alternatively linked polymer does not lead to proteasomal degradation and may be required for numerous functions, including maintenance of chromatic structure, regulation of gene expression, stress response, ribosome biogenesis and DNA repair. Ubiquitin is synthesized as a polyubiquitin precursor with exact head to tail repeats, the number of repeats of which differ between species and strains. In some species there is a final amino-acid after the last repeat, here in bovine a Cys. Some ubiquitin genes contain a single copy of ubiquitin fused to a ribosomal protein (either L40 or S27a).
Batch No.:	See product label
Unit size:	100 µl
Antigen:	Raised against purified ubiquitin conjugated with glutaraldehyde to keyhole limpet hemocyanin.
Antibody Type:	Monoclonal
Isotype:	IgG1
Clone:	Ubi-1
Other Names:	RPS27A; UBA52; UBB; UBC; Polyubiquitin-B; Polyubiquitin-C;
Accession:	P0CG47 UBB_HUMAN;
Produced in:	Mouse
Applications:	Western Blotting (WB), Immunohistochemistry - paraffin embedded tissue (IH-P) and ELISA. Suggested dilution for WB is 1:500-1,000. This antibody can be used on mildly fixed histological sections of human brain for studies of Alzheimer's disease. This antibody also works on paraffin embedded material. It also recognises other ubiquinated inclusion bodies such as Lewy bodies of Parkinson's disease and the Pick bodies in Pick's disease in formalin fixed tissues. Suggested dilution for IH is 1:500. Biosensis recommends optimal dilutions/concentrations should be determined by the end user.
Specificity:	The specificity of this antibody has been confirmed by WB. This antibody detects ~8.5 kDa Ubiquitin.
Antibody Against:	Ubiquitin
Cross-reactivity:	Hu, Bov, Chk, Drosophila, and C. elegans
Form:	Lyophilised with 5% trehalose
Appearance:	White powder
Reconstitution:	Reconstitute in sterile distilled water. Centrifuge to remove any insoluble material.
Storage:	After reconstitution of lyophilised antibody, aliquot and store at -20°C for a higher stability.

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Avoid freeze-thaw cycles.

Expiry Date: 12 months after purchase

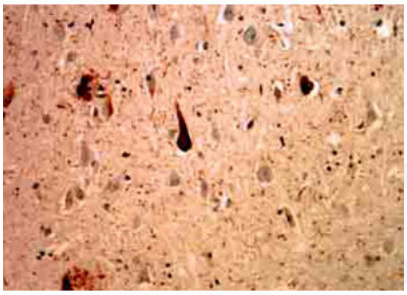
Specific References:

1. Josephs K.A. et al (2006) Atypical progressive supranuclear palsy with corticospinal tract degeneration. J Neuropathol Exp Neurol. 2006 Apr;65(4):396-405.

2. Josephs K.A. et al (2007) Neuropathologic features of frontotemporal lobar degeneration with ubiquitin-positive inclusions with progranulin gene (PGRN) mutations. J Neuropathol Exp Neurol. 2007 Feb;66(2):142-51.

3. Rudzinski L.A. et al (2008) Early onset familial Alzheimer Disease with spastic paraparesis, dysarthria, and seizures and N135S mutation in PSEN1. Alzheimer Dis Assoc Disord. 2008 Jul-Sep;22(3):299-307.

4. Josephs K.A. et al (2009) Evaluation of subcortical pathology and clinical correlations in FTLD-U subtypes. Acta Neuropathol. 2009 Sep;118(3):349-58.



Mouse monoclonal antibody to Ubiquitin [Ubi-1] M-1404-100 staining of cerebral cortex of an Alzheimer patient. Neurofibrillary tangles and dystrophic neurites associated with senile plaques stain strongly with this antibody. In the center is a typical neurofibrillary tangle containing neuron.

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