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UBL4 Antibody (C-term) Blocking Peptide
Synthetic peptide
Catalog # BP2129b

Specification

UBL4 Antibody (C-term) Blocking Peptide - Product Information

Primary Accession	P11441
Other Accession	NP_055050

UBL4 Antibody (C-term) Blocking Peptide - Additional Information

Gene ID 8266

Other Names
Ubiquitin-like protein 4A, Ubiquitin-like protein GDX, UBL4A, DXS254E, GDX, UBL4

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP2129b was selected from the C-term region of human UBL4 . A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

UBL4 Antibody (C-term) Blocking Peptide - Protein Information

Name UBL4A (HGNC:12505)

Synonyms DXS254E, GDX, UBL4

Function
As part of a cytosolic protein quality control complex, the BAG6/BAT3 complex, maintains misfolded and hydrophobic patches- containing proteins in a soluble state and participates in their proper delivery to the endoplasmic reticulum or alternatively can promote their sorting to the proteasome where they undergo degradation (PubMed:20676083, PubMed:21636303, PubMed:21743475, PubMed:28104892). The BAG6/BAT3 complex is involved in the post-translational delivery of tail-anchored/type II

transmembrane proteins to the endoplasmic reticulum membrane. Recruited to ribosomes, it interacts with the transmembrane region of newly synthesized tail-anchored proteins and together with SGTA and ASNA1 mediates their delivery to the endoplasmic reticulum (PubMed:20676083, PubMed:25535373, PubMed:28104892). Client proteins that cannot be properly delivered to the endoplasmic reticulum are ubiquitinated and sorted to the proteasome (PubMed:28104892). Similarly, the BAG6/BAT3 complex also functions as a sorting platform for proteins of the secretory pathway that are mislocalized to the cytosol either delivering them to the proteasome for degradation or to the endoplasmic reticulum (PubMed:21743475). The BAG6/BAT3 complex also plays a role in the endoplasmic reticulum-associated degradation (ERAD), a quality control mechanism that eliminates unwanted proteins of the endoplasmic reticulum through their retrotranslocation to the cytosol and their targeting to the proteasome. It maintains these retrotranslocated proteins in an unfolded yet soluble state condition in the cytosol to ensure their proper delivery to the proteasome (PubMed:21636303).

Cellular Location
Cytoplasm, cytosol. Nucleus

UBL4 Antibody (C-term) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

UBL4 Antibody (C-term) Blocking Peptide - Images

UBL4 Antibody (C-term) Blocking Peptide - Background

The UBL4 gene lies in a ubiquitiously transcribed region on the X chromosome approximately 40 kb downstream of glucose-6-phosphate dehydrogenase (G6PD).1 The UBL4 gene, which encodes for a 157 amino acid protein, is consistent with the characteristics of a housekeeping gene, since transcripts are detected a multiple cell types, and the protomoter region is rich in GC sequences and lacks signals such as TATA and CAT boxes. The UBL4 protein bears strong similarity in its 72 N-terminal amino acids to ubiquitin. In the middle of the C-terminus moiety of the UBL4 protein, similarities to the thyroglobulin hormonogenic site, the sequence that surrounds the tyrosines that will form thyroxine, have been demonstrated.2 It has been inferred from these data that the UBL4 protein plays an important role in essential cellular functions.

UBL4 Antibody (C-term) Blocking Peptide - References

Chen, E.Y., et al., Hum. Mol. Genet. 5(5):659-668 (1996).Toniolo, D., et al., Proc. Natl. Acad. Sci. U.S.A. 85(3):851-855 (1988).