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

HUB1(UBL5) Blocking Peptide (N-term)

Synthetic peptide
Catalog # BP1084a

Specification

HUB1(UBL5) Blocking Peptide (N-term) - Product Information

Primary Accession	Q9BZL1
Other Accession	Q9EPV8, Q3T0Z3, NP_077268

HUB1(UBL5) Blocking Peptide (N-term) - Additional Information

Gene ID 59286

Other Names
Ubiquitin-like protein 5, UBL5

Target/Specificity
The synthetic peptide sequence is selected from aa 18~38 of HUMAN UBL5

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.

HUB1(UBL5) Blocking Peptide (N-term) - Protein Information

Name UBL5

Function
Ubiquitin-like protein that plays a role in cell proliferation and sister chromatid cohesion by associating with spliceosomal proteins (PubMed:25092792). Participates thereby in pre- mRNA splicing by maintaining spliceosome integrity. Promotes the functional integrity of the Fanconi anemia DNA repair pathway by interacting with FANCI component and subsequently mediating the formation of FANCI homodimers (PubMed:25862789). Plays also a protective role against ER stress-induced apoptosis (PubMed:37315790).

Cellular Location
Cytoplasm. Nucleus. Nucleus, Cajal body

Tissue Location

Ubiquitous. Highest level of expression in heart, skeletal muscle, kidney, liver, iris and lymphoblasts

HUB1(UBL5) Blocking Peptide (N-term) - Protocols

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

- Blocking Peptides

HUB1(UBL5) Blocking Peptide (N-term) - Images

HUB1(UBL5) Blocking Peptide (N-term) - Background

UBL5 is a widely expressed human protein that is strongly conserved across phylogeny. Orthologs of UBL5 occur in every eukaryotic genome characterized to date. The yeast ortholog of UBL5, HUB1, was reported to be a ubiquitin-like protein modifier important for modulation of protein function. However, unlike ubiquitin and all other ubiquitin-like modifiers, UBL5 and its yeast ortholog HUB1 both contain a C-terminal di-tyrosine motif followed by a single variable residue instead of the characteristic di-glycine found in all other ubiquitin-like modifiers. Here we describe the three-dimensional structure of UBL5 determined by NMR. The overall structure of the protein was found to be very similar to ubiquitin despite the low approximately 25% residue similarity. The signature C-terminal di-tyrosine residues in UBL5 are involved in the final beta sheet of the protein. This is very different to the di-glycine motif found in ubiquitin, which extends beyond the final beta sheet. In addition, we have confirmed an earlier report of an interaction between UBL5 and the cyclin-like kinase, CLK4, which we have determined is specific and does not extend to other cyclin-like kinase family members.

HUB1(UBL5) Blocking Peptide (N-term) - References

Friedman, J.S., et al., Genomics 71(2):252-255 (2001).