# abcam

# Product datasheet

# Recombinant Human c-Myc protein ab84132

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**Description** 

Product name Recombinant Human c-Myc protein

**Purity** > 75 % Affinity purified.

Purified by an affinity column in combination with FPLC chromatography.

**Expression system** Escherichia coli

Accession NM 002467

Protein length Full length protein

Animal free No

Nature Recombinant

**Species** Human

**Sequence** MPLNVSFTNRNYDLDYDSVQPYFYCDEEE

NFYQQQQSELQPPAPSEDIWKKFELLPTPPLSPSRRSG

LCSPSYVAVTP FSLRGDND

GGGGSFSTADQLEMVTELLGGDMVNQSFICDPDDETFIK

NIIIQDCMWSG FSAAAKLV

SEKLASYQAARKDSGSPNPARGHSVCSTSSLYLQDLSAA

ASECIDPSVVF PYPLNDSS

SPKSCASQDSSAFSPSSDSLLSSTESSPQGSPEPLVLHE

ETPPTTSSDSE EEQEDEEE

IDVVSVEKRQAPGKRSESGSPSAGGHSKPPHSPLVLKRC

HVSTHQHNYAA PPSTRKDY

PAAKRVKLDSVRVLRQISNNRKCTSPRSSDTEENVKRRT

HNVLERQRRNE LKRSFFAL

RDQIPELENNEKAPKVVILKKATAYILSVQAEEQKLISEEDL

LRKRREQL KHKLEQLR NSCA

Predicted molecular weight 50 kDa

Amino acids 1 to 439

Tags His tag C-Terminus

# **Specifications**

Our **Abpromise guarantee** covers the use of **ab84132** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

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**Applications** Western blot

SDS-PAGE

Form Liquid

## **Preparation and Storage**

### Stability and Storage

Shipped on Dry Ice. Upon delivery aliquot. Store at -80°C. Avoid freeze / thaw cycle.

pH: 7.9

Constituents: Potassium chloride, 0.0154% DTT, Tris HCI, EDTA, 20% Glycerol

Protein is stored in 20 mM Tris-CI (pH 7.5), 20% Glycerol, 100 mM KCI, 1 mM DTT and 0.2 mM

EDTA.

#### **General Info**

#### **Function**

Participates in the regulation of gene transcription. Binds DNA in a non-specific manner, yet also specifically recognizes the core sequence 5'-CAC[GA]TG-3'. Seems to activate the transcription of growth-related genes.

#### Involvement in disease

Note=Overexpression of MYC is implicated in the etiology of a variety of hematopoietic tumors. Note=A chromosomal aberration involving MYC may be a cause of a form of B-cell chronic lymphocytic leukemia. Translocation t(8;12)(q24;q22) with BTG1.

Defects in MYC are a cause of Burkitt lymphoma (BL) [MIM:113970]. A form of undifferentiated malignant lymphoma commonly manifested as a large osteolytic lesion in the jaw or as an abdominal mass. Note=Chromosomal aberrations involving MYC are usually found in Burkitt lymphoma. Translocations t(8;14), t(8;22) or t(2;8) which juxtapose MYC to one of the heavy or light chain immunoglobulin gene loci.

## Sequence similarities

ost-translational

Post-translational modifications

Contains 1 basic helix-loop-helix (bHLH) domain.

Phosphorylated by PRKDC. Phosphorylation at Thr-58 and Ser-62 by GSK3 is required for

 $ubiquitination\ and\ degradation\ by\ the\ proteasome.$ 

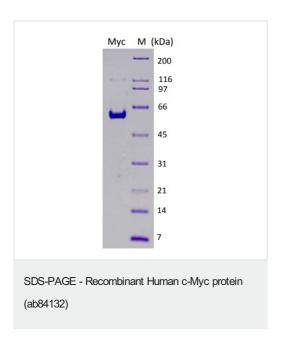
Ubiquitinated by the SCF(FBXW7) complex when phosphorylated at Thr-58 and Ser-62, leading to its degradation by the proteasome. In the nucleoplasm, ubiquitination is counteracted by USP28, which interacts with isoform 1 of FBXW7 (FBW7alpha), leading to its deubiquitination and preventing degradation. In the nucleolus, however, ubiquitination is not counteracted by USP28, due to the lack of interaction between isoform 4 of FBXW7 (FBW7gamma) and USP28, explaining the selective MYC degradation in the nucleolus. Also polyubiquitinated by the

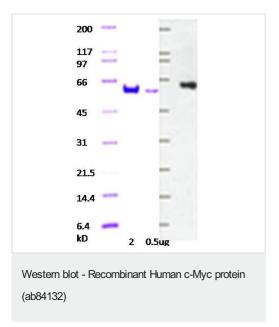
DCX(TRUSS) complex.

### **Cellular localization**

Nucleus > nucleoplasm. Nucleus > nucleolus.

# **Images**





SDS-PAGE with Coomassie Blue staining (Left) and Western-blot (Right)

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