# abcam

# Product datasheet

# Recombinant Human Vimentin protein (Tagged-His Tag) ab84704

1 References 1 Image

**Description** 

Product name Recombinant Human Vimentin protein (Tagged-His Tag)

**Purity** > 95 % SDS-PAGE.

Purity >95% as determined by densitometry.

**Expression system** Escherichia coli

Accession P08670

Protein length Full length protein

Animal free No

Nature Recombinant

**Species** Human

Sequence MSTRSVSSSS YRRMFGGPGT ASRPSSSRSY

VTTSTRTYSL GSALRPSTSR SLYASSPGGV YATRSSAVRL RSSVPGVRLL QDSVDFSLAD

AINTEFKNTR TNEKVELQEL NDRFANYIDK VRFLEQQNKI

LLAELEQLKG QGKSRLGDLY EEEMRELRRQ VDQLTNDKAR VEVERDNLAE DIMRLREKLQ EEMLQREEAE NTLQSFRQDV DNASLARLDL

ERKVESLQEE IAFLKKLHEE EIQELQAQIQ EQHVQIDVDV

SKPDLTAALR DVRQQYESVA AKNLQEAEEW
YKSKFADLSE AANRNNDALR QAKQESTEYR
RQVQSLTCEV DALKGTNESL ERQMREMEEN
FAVEAANYQD TIGRLQDEIQ NMKEEMARHL

REYQDLLNVK MALDIEIATY RKLLEGEESR ISLPLPNFSS LNLRETNLDS LPLVDTHSKR TLLIKTVETR DGQVINETSQ

**HHDDLE** 

Predicted molecular weight 60 kDa including tags

Amino acids 1 to 466

Tags His tag N-Terminus

**Specifications** 

Our **Abpromise guarantee** covers the use of **ab84704** in the following tested applications.

1

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

Applications SDS-PAGE

Western blot

Form Liquid

## **Preparation and Storage**

Stability and Storage Shipped on dry ice. Upon delivery aliquot and store at -80°C. Avoid freeze / thaw cycles.

pH: 7.00

Preservative: 1.02% Imidazole

Constituents: 0.00174% PMSF, 0.82% Sodium phosphate, 0.0308% DTT, 25% Glycerol

(glycerin, glycerine), 1.74% Sodium chloride

#### **General Info**

Function Vimentins are class-Ill intermediate filaments found in various non-epithelial cells, especially

mesenchymal cells. Vimentin is attached to the nucleus, endoplasmic reticulum, and

mitochondria, either laterally or terminally.

Involved with LARP6 in the stabilization of type I collagen mRNAs for CO1A1 and CO1A2.

**Tissue specificity** Highly expressed in fibroblasts, some expression in T- and B-lymphocytes, and little or no

expression in Burkitt's lymphoma cell lines. Expressed in many hormone-independent mammary

carcinoma cell lines.

Involvement in disease Cataract 30

**Sequence similarities**Belongs to the intermediate filament family.

**Domain**The central alpha-helical coiled-coil rod region mediates elementary homodimerization.

The [IL]-x-C-x-x-[DE] motif is a proposed target motif for cysteine S-nitrosylation mediated by the

iNOS-S100A8/A9 transnitrosylase complex.

Post-translational modifications

Filament disassembly during mitosis is promoted by phosphorylation at Ser-55 as well as by nestin (By similarity). One of the most prominent phosphoproteins in various cells of mesenchymal

origin. Phosphorylation is enhanced during cell division, at which time vimentin filaments are significantly reorganized. Phosphorylation by PKN1 inhibits the formation of filaments.

Phosphorylated at Ser-56 by CDK5 during neutrophil secretion in the cytoplasm. Phosphorylated

by STK33.

O-glycosylated during cytokinesis at sites identical or close to phosphorylation sites, this

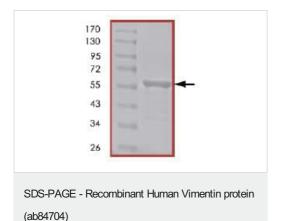
interferes with the phosphorylation status.

S-nitrosylation is induced by interferon-gamma and oxidatively-modified low-densitity lipoprotein

(LDL(ox)) possibly implicating the iNOS-S100A8/9 transnitrosylase complex.

Cellular localization Cytoplasm.

# **Images**



SDS-PAGE of ab84704 using 3ug Vimentin protein. Detected molecular weight approximately 60 kDa.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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